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MONDAY MORNING, JUNE 26, 1944

MAURICE E. PELOUBET, Partner, Pogson, Peloubet & Co., New York, N. Y., *Chairman*

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GEORGE D. BAILEY is Resident Partner of Ernst & Ernst in Detroit. A graduate of the University of Michigan, he is a C. P. A. of Michigan, Ohio, and other states. For many years, Mr. Bailey has been active in the American Institute of Accounts and has served on Institute committees on terminology, public utility accounting, and accountants' certificates. He has also served on the Council of the Institute and on its Executive Committee, as chairman of the Committee on Governmental Audit of Contractors' Costs and as a member of the Committee on Methods of Limiting War Profits. At present Mr. Bailey is a Vice President of the American Institute, a member of its Committee on Accounting Procedure, and Chairman of its Committee on Termination of War Contracts.

TERMINATION OF WAR CONTRACTS

The opening session of the Twenty-fifth International Cost Conference of the National Association of Cost Accountants, held at the Palmer House, Chicago, Illinois, was called to order on Monday morning, June 26, 1944, at nine forty-five o'clock, by the President, John H. DeVitt.

PRESIDENT DEVITT: The Twenty-fifth International Cost Conference of the National Association of Cost Accountants is now in session. I welcome each one of you to this important conference and I urge you to participate freely in all of its activities and in all of its meetings. By so doing you will be assured of an ample return on the investment in time and energy that you have made to be here, and, more important, you will add to the contributions which will stem from this conference.

This is the third N.A.C.A. conference to be held in wartime. The decision to proceed was made last August and that decision has been examined carefully and periodically in the intervening period to see if the need for this conference continued to exist. Naturally the only measuring stick which should be and could be applied was the value of this conference to the war effort. Every time that measuring stick was applied, we had an affirmative answer. The multiplicity of problems facing industry seemed to require the help of many minds for their solution. Those problems are too many to catalog here, but your attendance is evidence of the fact that they exist and that they require discussion. At this moment it looks as if this conference is not only one of the most important ones in our history, but it is also the largest.

Attending a conference in these days is not a matter of fun and relaxation; it is a matter of duty and work. Considering this point, the evidence of your attendance substantiates the need for this conference. Speaking parenthetically, if I may for one moment, the men who are responsible for this conference realize that many of you are going to suffer inconvenience. Things are not going to run as smoothly and as nearly on schedule as both you and we would like to have them, but your various committees are making thoughtful and really tremendous efforts for your comfort, and if things sometimes slip off the beam a little, I know that you will be indulgent.

It has been a laborious and exacting task to plan for this conference, particularly in the area of the technical sessions. The Technical Program Committee, which was appointed last fall, has met many, many times in these past months to design our program. They have given freely of their time, their efforts, and their energy to furnish us with an opportunity to examine our problems, and their planning will provide us with a vehicle for contribution to our businesses, our industries, and our profession, and we will be enriched from their labor. The Program Committee and the speakers whom they have secured for us for this conference deserve and will receive, I know, our sincere appreciation for all of the things that they have done and are going to do for us. It is my considered conviction that the Technical Program Committee, consisting of Logan Monroe of Cleveland, Chairman, Maurice E. Peloubet of New York, William Jackman of Rochester, and Gene J. Kempf of Detroit, have created an outstanding and distinguished program. I know that you will share my conviction as the program proceeds and unfolds.

I am delighted, indeed, to present to you Logan Monroe, Controller of the Eaton Manufacturing Company, Cleveland, Ohio, Chairman of the Conference Technical Program Committee.

CHAIRMAN MONROE: The Conference Technical Program Committee, as many of you know, consists of a chairman and three committee members. I have often wondered in recent years just why we needed a chairman and this year I found out. We don't. Each committee member is chairman for one day, and has arranged his own program, procured his speakers, and presides during his day. It seems to me the General Chairman is a sort of fifth wheel.

Before I turn this program over to today's chairman, I wish to acknowledge with sincere appreciation the efforts of one whose name does not appear as a member of our committee. He is Dr. Ray Marple. Had it not been for Ray's experience, help, guidance, and counsel, I am sure we would not have had the program which we are able to present to you at these sessions.

Today's chairman is Maurice Peloubet. Maurice needs no introduction to a great many of you. He is well known throughout our Association. He is the co-author of the Green Book, which two years ago was the subject of much discussion, and he appeared on this platform to discuss it. He has been more active in the

American Institute than he has been in our own Association. He has written many articles for the Journal of Accountancy. I am very happy to present to you Maurice Peloubet, Partner of Pogson, Peloubet & Company, New York.

Chairman Peloubet: I think Logan defeated his own argument about the fifth wheel, because if you will notice there are only four members of the committee, himself and three committee members, and I think taken together we have made a very good sort of vehicle. It creaked a little and Logan had to put a little axle grease on in spots, which has been very effective. But the vehicle did get along. I am sure that if we had had only three wheels on the vehicle we would have had a bad time.

Our first speaker, as you have seen from the program and from the conference newspaper, is a distinguished lawyer, banker, and a member of many organizations—in other words, he is a citizen, which means a good deal. He wears the uniform of the United States Army now. He is a United States Army officer, but he is not a professional soldier. He is in the government service, but he is not a bureaucrat or a careerist. I like to think of men like Colonel Downie and of so many of my other friends in similar positions as being like the citizens of some of the old Greek cities, who, when there was war and invasion, when there were difficulties, left their farms, their ships, or their businesses, and the peaceful citizen was changed overnight to a general, a legislator, or a judge. When the emergency passed, he dropped all of those titles and duties, and went back to what is usually a more valuable function, that of simply being a useful, well-rounded citizen.

I think the only thing with which I would take issue with the conference newspaper about Colonel Downie is the fact that it said that he will probably give us the military point of view. I don't believe that is going to happen at all. I think what Colonel Downie is going to do is to give us the problem from the viewpoint of a citizen who has fulfilled most of the functions and most of the duties of a citizen, which include service in the Army and service to the Government, but I think he is a citizen first, and I believe that is the way he is going to talk to us.

I have great pleasure in introducing Lieutenant-Colonel Robert C. Downie, District Chief of the Pittsburgh Ordnance District.

GENERAL TERMINATION PROBLEMS

LIEUTENANT-COLONEL ROBERT C. DOWNIE,

District Chief, Pittsburgh Ordnance District,
Army Service Forces, Pittsburgh, Pa.

MUCH has been said and written about the termination job—what should be done, what should not be done, and what must be done to close up contracts quickly. Without presuming to know all the answers, it is believed that there are certain basic difficulties at the present time, none of which are particularly serious, and all of which will straighten themselves out if we can have a little patience and a little tolerance in getting this job done.

Lack of Knowledge

In the first place, there is a definite lack of knowledge of the policies and procedures to be followed in the settlement of contracts. In most cases where confusion and differences arise it is due to misunderstanding. The plain fact is that the manner in which the job is done, and the requirements that must be complied with, are not widely understood. To be sure, many people are familiar with the over-all problems. But, in the main, the mechanics of the job and the details of what must be done are not generally appreciated. The expeditious settlement of terminated contracts is 90 per cent the "know how" of how the job is done—the organizational setup of the War, Navy, and Treasury Departments, and the other procurement agencies of the Government, the mechanics and the details involved. The education of prime contractors, subcontractors, and suppliers, both by Government and industry, on the policies and procedures to be followed is absolutely essential. The Research Committee of the Committee for Economic Development recently issued a statement on "Postwar Employment and the Settlement of Terminated War Contracts," the final paragraph of which reads as follows:

> This statement would be incomplete if we failed to point out that business, as well as Government, has an important share of the responsibility for the speedy settlement of contracts. If the desired objective is to be achieved, contractors and subcontractors must educate themselves fully as to established policies

and procedures for the settlement of terminated contracts. Prime contractors, especially, must be ready with trained personnel adequate for the task of dealing speedily and efficiently with the claims of their subcontractors. Unless business performs its part of the task, Government efforts to effect speedy settlements will be of little avail.

Shifting Responsibility

In the second place, too much emphasis has been placed on trying to shift the responsibility to "George." But we have been having trouble finding "George." Both industry and those of us in the Government have been trying to pass the responsibility for this job around—trying to get somebody else to do it. Take for example the verification of subcontractors' claims. You want us to do the job; we want you to do the job; and both of us would like someone else to do the job. Much time and effort has been spent in trying to find some easy way to unravel this contractual puzzle in a different manner than it was put together. Vertical settlements, it is strongly urged, will bog down when we come to mass cancellations, and yet in the War Department over 17,000 terminated contracts out of some 23,000 terminated up to May 1, 1944, have been completely settled by the vertical method. Too often, in business as well as in life, we are prone to think that the grass is greener on the other side of the fence. Experiments are being made on over-all company settlements and these experiments may demonstrate that short cuts are feasible. Without expressing any opinion against this method if it can be worked out, I can only suggest that a puzzle comes apart in the same way it was put together.

"The Horse Is Not Hungry"

In the third place, by and large, "the horse is not hungry." This is the major "bottleneck" today in reaching quick final settlements. There are exceptions, of course, but this is generally the case. Industry, for the most part, has not been in any critical financial condition where settlements are vitally necessary for working capital purposes. There has been, to be sure, a lot of pressure from various sources on getting the machinery set up to do the job, particularly in some easy manner, but there has been no real necessity of buckling right down and doing it.

What we need is (1) a clear understanding of the policies to be

followed and the manner in which the job is done; (2) an acceptance of the responsibility involved in doing the job; (3) courage to make decisions on a realistic and practical basis; and (4) most of all, just getting down to work and doing the job, which involves the details and paper work which cannot be avoided no matter what system may be developed.

This job can be done in substantially the same manner that it would be done in commercial business. But, unless the policies and procedures that are established are understood, the task ahead will not only seem mysterious, but it actually will be mysterious. Government and industry must work together. We must cooperate as a team in reaching prompt settlements. You must do your part and carry out your responsibilities; we in Government must carry out our responsibilities and do our part of the job. Both of us must have a determination to do the job and have courage to accept responsibility for the things we do and the decisions we make. Both of us—not merely the men on the Government side—must be willing to sit under the spotlight of investigation, with the advantage of hindsight on the other fellow's side.

War Department Organization

Time does not permit an explanation of the organization of the various procurement agencies nor even the organization of the War Department. Suffice it to say, the Army Service Forces of the War Department is responsible for the procurement, distribution, and supply of all weapons, equipment, vehicles, and supplies for the Army, except aircraft and supplies procured by the Army Air Forces. The Army Service Forces is a staff organization, one of whose functions is to establish uniform policies and procedures for the settlement of terminated contracts both in the Army Air Forces and Army Service Forces. The operating organizations of the Army Service Forces are the seven Technical Services—Quartermaster, Signal Corps, Corps of Engineers, Chemical Warfare Service, Transportation Corps, Surgeon General, and last but not least, the Ordnance Department. Each of these seven Technical Services has its headquarters in Washington, but in order to decentralize their operations, each of them has established district or regional offices throughout the United States.

For all practical purposes, the procurement agencies of the War Department are these local district offices. The job of placing con-

tracts and negotiating settlements of terminated contracts is decentralized and delegated down to these offices. Our job in the district offices is to actually pay out the money in line with the policies and procedures established by higher authority. It is these district offices with whom contractors, both prime and sub, must deal on their terminated contracts. We are on the firing line so to speak. We are the men who have been given the job to do. We are the men who will take the "rap" of criticism and blame for the errors and mistakes. When the pressure is relaxed and the spotlight of investigation is turned on, we are the men who may have the unhappy job of trying to justify and explain things we did in the interest of expeditious settlements.

The Work of the District Offices

Like the many jobs you may have to do, the settlement of terminated contracts is only one of the jobs we have to do these days in the district offices. The negotiation of new contracts, the expediting of production, the inspection of materiel being produced, the renegotiation of contractors, together with the ramifications involved in each of these activities must be done, and done quickly and carefully because the war has not been won.

In addition, our job is to close up terminated contracts as quickly as possible with fairness to contractors and with protection of the interests of the Government. This termination job must be fitted into our organizations, the same as your organizations, because we, too, have a manpower problem and we, too, lack adequate personnel to handle the work on an ideal basis.

What we are trying to do is to handle terminations as efficiently as possible along with our other work, and to train and educate as many of our personnel as possible. When V-Day comes, we hope to have personnel thoroughly familiar with the termination work so that we can turn all of our efforts in the direction of prompt settlements to the end that we can quickly make final settlements and permit you to return to peacetime production.

The Contracting Officer

The job of handling terminated contracts is not easy; it is a difficult job at best. Legally, the "Contracting Officer" is charged with the responsibility of making settlements. But, to a large extent, the

Contracting Officer as the fellow who does the job is a myth. The Contracting Officer is only the legal representative of the Government. He does not discharge all the duties and responsibilities which are placed on him by the contract. This would be humanly and physically impossible. What you will find in a procurement office is an organization for doing the job—an organization made up of (1) a negotiating group, (2) a group engaged in the disposition of property, (3) a fiscal group engaged in auditing and certifying claims, (4) a legal group engaged in preparing the legal instruments, and (5) various other individuals who perform special duties. It is these various groups who perform the duties and responsibilities for the Contracting Officer.

In addition, a Board of Review, a Board of Settlement, or by whatever name it may be called, consisting of three or more top officials in the organization, reviews and approves settlements with contractors. This board, operating under the head of the organization, results in group judgment, eliminating action based entirely on the ideas of any one person. And it also maintains uniform procedures and practices throughout the organization in dealing with contractors.

In the district offices, we, like you, must operate through people. No one individual can do the job. We must delegate the job down to our people. We must operate as an organization. No job such as this, with its details and ramifications, can be carried on unless we clearly define (1) what is to be done, (2) who is to do it, (3) when it is to be done, and (4) how it is to be done. Written procedures must be established which outline "what," "who," "when," and "how." One of our most difficult problems has been setting up an organization and a system to do the job. We have had considerable difficulty. It is not easy to do and requires a great deal of planning and patience in order to get a system working smoothly. We cannot let people operate entirely on their own judgment; we must establish guides to be followed and lay out a uniform plan of operation. In addition, it is most difficult to keep people informed of the changes that are constantly being made. You have trouble along this line and so do we. People down the line easily get confused. So do the rest of us. With changes coming week after week, many of which necessitate revisions and new procedures in the system established for doing the job, it is not easy to keep our people currently informed and "on the beam" as to how to do the job.

The Contractor's Organization for Termination

May I say a word about your organizations. The procurement offices cannot settle your cancelled contracts. You have an important part to play. The settlement of your terminated contracts is one of the biggest jobs that face your organization, and you cannot handle it unless you establish a well thought-out plan of operation. At the present time, fully 50 per cent at least of contractors, both prime and sub, have made little headway in coordinating the termination job in their own organizations. All of you have fine organizations and have done a magnificent job in the war effort, but many of you have not organized, or rather reorganized, for the termination job.

And may I, in all due respect, suggest that the termination job is not an accountant's job. It is not a lawyer's job. It is not a purchasing agent's job. It is not a collection agent's job. It is a leader's job—a job for a strong man in each organization—perhaps, an accountant—who has an over-all knowledge of the policies and procedures that are established, a determination and the authority to get the job done, and courage to make decisions and keep on going. Let me illustrate: the time and effort spent by some concerns, and not small concerns either, in processing small claims—claims, for example, of $66.63 and $77.49, from large subcontractors may indicate the lack of realistic approach. Certainly, someone in the organization should establish a policy with respect to the types of claims to be processed. Someone should decide whether, in the interest of expeditious settlements, it is worthwhile to process small claims which, in the aggregate, would make no appreciable differences on the profit and loss statement. The last pound of flesh approach may be good for the cash register, but it might not be good business on a practical basis if industry is interested in quick final settlements.

Accountants, of course, must prepare the figures on which settlements are based; the purchasing department or some other group must be organized to dispose of property; some individual or group must be set up to negotiate settlements, etc. All these functions are essential. But the over-all policies established in each organization must be controlled and supervised by a strong man who understands that a negotiated settlement is not based on mathematical precision if the facts and figures reasonably support the settlement that is made.

Furthermore, the right approach or philosophy is most essential.

This termination job is not up to the Government, despite the widespread attitude that prevails that the Government should do the job and not ask industry to accept much of the responsibility or work to be done. The attitude, for example, that the materials and work in process that are left on a contract belong to the Government, so "come and get them" is not the proper approach if you are interested in expeditious settlements. Working together, we can do the job expeditiously.

Facts and Figures Essential

May I mention again that to a large extent the termination job is a matter of details and paper work. All of us would like to avoid these details and paper work, but they cannot be avoided no matter what plan is developed. The negotiation of a settlement is the easiest job we have. The negotiation is only a matter of minutes or hours at the most. But the facts and figures on which the final negotiation is based are time-consuming. The disposition of raw materials, work in process, etc., the verification of claims, and the settlements of subcontractors' claims all take time and a lot of details. When these things have been done, and the facts and figures are available, the negotiation of the settlement is relatively simple. We cannot negotiate the settlement of a terminated contract without facts and figures, and we cannot get the facts and figures out of "thin air." Our job in the procurement agencies is to protect the interests of the Government, and we cannot do that if we do not have the facts and figures on which to base our judgment. There is no easy road to success, and there is no easy road to closing up terminated contracts. It is simply necessary to recognize that certain things must be done, and the sooner we get down to work and do them the better off we all will be.

The Uniform Termination Articles and Cost Principles

To understand the mechanics of this job, it is necessary to be familiar with the policies established by the various governmental agencies concerned with the termination problem. The Joint Contract Termination Board, as you know, is concerned with all aspects of the termination of war contracts and settlements with contractors. It establishes policies and procedures to be followed by the War, Navy, and Treasury Departments, the Maritime Commission, the Defense Plant Corporation, and other procurement agencies handling

terminated war contracts. This Board has prescribed a Uniform Termination Article for Fixed-Price Supply Contracts, termination at the option of the Government, to be included in all prime contracts. It has also prescribed a Uniform Termination Article for contractors to use in their subcontracts and purchase orders and has recommended its use by contractors to the fullest extent practicable.

These uniform termination articles for both prime contracts and subcontracts establish a uniform method of fixing the rights and obligations of contractors with the Government and between contractors. In addition, this Board has approved a "Statement of Principles for Determination of Costs" in connection with terminated fixed-price supply contracts, which establishes a guide to be followed by the procurement agencies with contractors in the determination of costs and expenses applicable to terminated contracts.

The Negotiated Settlement

Under these uniform termination articles and the statement of cost principles, a wide latitude is provided for negotiated settlements. Simply stated, the contractor is entitled to reimbursement for all costs and expense *properly* chargeable to the terminated contract, plus a reasonable profit on work performed. Settlements by the rigid formula method are to be followed only when a fair and reasonable settlement cannot be arrived at by negotiation. Profit is not limited to 6 per cent under a negotiated settlement as it is under a formula settlement. The negotiated settlement is a flexible method and is the recommended method by which prompt settlements can be reached by the Government with prime contractors and by prime contractors with subcontractors and suppliers.

The verification of claims of prime contractors and subcontractors, which involves, of course, a check to determine whether the claim includes only items of costs and expense properly allowable, is covered in a War Department manual referred to as the "Termination Accounting Manual." This Manual is a guide to be used by the War Department procurement agencies and also by prime contractors in connection with negotiated settlements but not in connection with settlements made on the formula basis. It is a guide which prescribes the nature of the examination required, such as an office review, complete audit, or spot check, the extent of the verification in each type of examination, and the accounting data and other information to be submitted by contractors in support of their claims.

Procurement Regulation 15

One other basic document deserves mention. The War Department has established uniform policies and procedures for the settlement of terminated contracts. These policies and procedures are issued by the War Department to its various procurement offices in the form of procurement regulations. The regulation covering terminated contracts is referred to as Procurement Regulation 15 (PR 15), copies of which most of you already have received. This is a rather sizable document, but remarkably concise, considering the complexity of the subject. It sets forth the basic policies and procedures to be followed in all War Department procurement offices. This regulation is available to industry so that industry will know and understand the basis on which the procurement offices of the War Department operate in their relations with industry in the settlement of their contracts.

So far as I know, similar regulations have not been issued as yet by the Navy Department and other procurement agencies covering terminated contracts, although appropriate rules and regulations will, no doubt, be issued shortly by each agency having jurisdiction over war contracts.

The Contract Settlement Act

Within the past few days the Congress has passed the Contract Settlement Act of 1944 and there is every reason to believe that it will be signed. This much needed legislation will clarify a number of problems, but, make no mistake about it, it will not solve all of them. The Act establishes an Office of Contract Settlement with a Director in charge, and with a Contract Settlement Advisory Board composed of the heads of the principal agencies of the Government handling war contracts, such as the Army, the Navy, the Treasury, the RFC, the Maritime Commission, the WPB, etc.

The Director and his Advisory Board will no doubt supersede the Joint Contract Termination Board and will pick up from where that Board left off. Incidentally, I should like to say that in my opinion the Joint Contract Termination Board has done a very admirable job in trying to coordinate this job among the various agencies.

The Act provides for settlement by the contracting agencies—not by new agencies, but by the contracting agencies. The Director is

empowered to establish uniform policies, procedures, and forms among all procurement agencies and to make them mandatory, and that may be helpful. The Director may, if he sees fit, authorize the settlement of claims by the vertical method or by the horizontal method; he may direct settlement of subcontractors' claims by a designated agency; and may even authorize over-all company settlements, if that proves to be feasible and the best way to do the job. The Act provides for negotiated settlements, and very favorable language is written into the Act with respect to such settlements. It provides for the payment of interest on claims at the rate of 2½ per cent.

Interim Financing

If the Act is passed in its original form, it provides for interim financing to the extent of 90 per cent on direct costs and factory overhead, plus a reasonable percentage of indirect costs. It does not make such interim financing mandatory on the part of the procurement agencies. That will be a matter for regulation which will have to be worked out.

The Act makes it clear that the General Accounting Office shall not have the right of pre-audit, and the right of post-audit only for fraud.

Flexible provisions are also set up for appeals, if settlements cannot be worked out rather promptly with the procurement offices. There is a rather elaborate provision set up with respect to appeals, so if you like to play around the courts, there are all sorts of opportunities to take appeals from the decisions of procurement agencies.

The Act also incorporates the so-called "sixty-day rule," giving contractors, both prime and sub, the right to remove and store property at the risk and expense of the Government if not removed or disposed of within sixty days after the submission of a termination inventory and demand for removal. The Act requires a physical inventory to be taken and a list of that inventory to be filed with the procurement agency.

A Challenge to Industry

I have mentioned only the highlights of this Act. On the whole, it is an excellent statute, but in all sincerity I would say that it is pretty much a challenge to industry, because it is a very favorable piece of legislation, and whether or not it is administered in a flexible

manner for industry depends upon what industry does in submitting its claims. You men of industry have a responsibility under this Act that you should not overlook.

It follows rather closely the Baruch-Hancock recommendations. Some changes will, of course, have to be made in the policies established by the Joint Contract Termination Board and in the War Department and the other agencies, but fundamentally the Act does not change in any substantial respect the policies and practices now being followed. Until changed or superseded by the Office of Contract Settlement, the existing policies and procedures continue in full force and effect, so that we can keep on going in closing up current terminations. This is fortunate because it will prevent a stoppage in the work we are doing and give the Director an opportunity to set up adequate regulations for the administration of the Act.

The Act does not, however, cover the disposal of property or make any provisions for sale or disposition of termination inventories. That is to be the subject of separate legislation, which probably will not be enacted for some time. It is a most difficult problem, one that vitally affects the economy of this nation. It is also closely related to the termination of contracts.

The Surplus War Property Administration

The selling and pricing policies to be followed by the War, Navy, and Treasury Departments, the Defense Plant Corporation, and other procurement agencies having jurisdiction over the termination of war contracts, are prescribed by the Surplus War Property Administration. The Administrator has issued specific rules for the guidance of contractors and contracting officers in the disposal of termination inventories. Generally, property is divided into two classifications for this purpose: first, "Usable property," and second, "Property having no use except as scrap." Specific rules are laid down with respect to each of these general classes of property.

In addition, the Administrator has made a general distinction in the disposal of property based on the size of the claim of the prime contractor or subcontractor. Whenever the entire termination claim of the prime contractor or subcontractor, before disposal credits, is less than $10,000, the property included in the claim may be disposed of at the best price obtainable, regardless of the actual price realized or loss sustained for which reimbursement is made by the Government. On the other hand, whenever the entire termination claim of

the prime contractor or subcontractor exceeds $10,000, the property included in the claim may be disposed of within certain price limits established by the Administrator. The rules provide, for example, that (1) crude or simple raw materials may be disposed of at "the going market price"; (2) sales of property, other than crude or simple raw materials, may be made at the best price obtainable in excess of 75 per cent of cost or 75 per cent of the price which the particular buyer would have to pay for an equivalent quantity of the property from a normal source of supply, whichever is lower; and if such minimum price cannot be obtained, then the property may be sold to a buyer who will consume it in the United States for manufacturing, maintenance, or repair purposes, at the best price obtainable, provided the buyer agrees not to sell it at a profit if he does not so consume it.

Within the general limits prescribed by the Surplus War Property Administration, the procurement agencies are urged to act boldly and exercise wide discretion in the prompt disposal of property. As stated by the Administrator, "much of the property involved is of such special nature, or has been processed in such a way, as to admit of no possibility of use in its existing form. There is an additional amount which might be used if time permitted an extended search for an appropriate use, or if use restrictions could be relaxed. The necessity for prompt clearance of plants severely limits the amount of effort and time that can be expended on such a search. It is essential to make an early determination that property either offers a reasonable possibility of sale, or should be scrapped." The Surplus War Property Administration regulations further provide that sales of scrap, regardless of the method of sale adopted, shall be subject to the buyer's warranty that the property will in fact be used as scrap. This is a mandatory requirement which makes it necessary for the buyer to execute a written statement which in effect provides that he will either sell or use the property "as scrap either in its existing condition or after further preparation in accordance with applicable regulations of the Office of Price Administration and the War Production Board." Much misunderstanding has arisen on this point and much resistance has been met with industry in executing such warranties.

Sale of Government-Owned Property

The Surplus War Property Administration also controls the sale and disposition of government-owned property, including property

acquired by the Government in the settlement of terminated contracts. The operating agencies for the handling and sale of such government-owned property are (1) the Reconstruction Finance Corporation with respect to capital and producer's goods, such as machine tools and equipment, tooling, gages, completed and partially fabricated parts, and supplies; (2) the Procurement Division of the Treasury Department with respect to consumer goods, such as motor vehicles, automotive equipment, radios, clothing, nails, glass, pottery products, etc.; (3) the U. S. Maritime Commission with respect to ships and maritime property; (4) the Navy Department with respect to naval combat ships and naval auxiliaries; (5) the War Food Administration with respect to food; (6) the National Housing Agency with respect to housing; (7) the Federal Works Agency with respect to community facilities; and (8) the Foreign Economic Administration with respect to all surplus war property located outside the United States. The assignments are based on the Standard Commodity Classification issued by the Government. Most contractors will be concerned only with the Reconstruction Finance Corporation and Treasury Department.

When title to termination inventories is transferred to the Government in the settlement of a contract, the property is reported by the procurement agency to the agency handling that class of property (for example, the RFC or Treasury Department) and thereafter such agency is responsible for the sale and disposal of the property. So that, if a contractor retains surplus property in storage, title to which has been transferred to the Government in connection with the settlement of a contract, the disposal of such property and the removal from the contractor's plant will be handled by the particular agency charged with the responsibility for such class of property.

It is, of course, unnecessary to review the details and paper work required in the settlement of a terminated contract with a group such as this. Without question, you folks in the National Association of Cost Accountants are well informed on the problems and ramifications. I would, however, like to mention a few of the major problems involved in this job.

The Starting Point

In the first place, we start off with a "Notice of Termination," which informs a contractor that his contract has been terminated. This is the starting signal. From this point on, property must be

disposed of, claims must be verified, subcontractors' claims must be settled, and final settlements must be negotiated. The "Notice of Termination," not the filing of a claim, is the time to get started. Many things can be done long before a formal claim is filed. The disposition of property need not be held up until the final claim is filed. Subcontractors' claims may be settled piecemeal, and it is not necessary to hold up claims of individual subcontractors until final settlement of the claim of the prime contractor. Too often, the wheels are not set in motion on the many things to be done until the claim is filed. But, sooner or later, the formal claim must be filed—and whether you get your money sooner or later depends to a very large extent on how soon your claim is filed. Today, it takes, on the average, three to five months to get claims filed, and in too many cases nothing has been done at that time in the disposal of property or checking of subcontractors' claims.

Removal of Government-Owned Equipment

The removal of government-owned machine tools and equipment in your plants is not a major problem today, as it will be on V-Day. At that time, and even now, if the contractor cannot retain or store the tools and equipment, the Government is prepared to take them out. While the prompt removal of machine tools and equipment from many plants will be necessary to get into peacetime production, this will not be a major problem in all plants throughout the United States as so many people are inclined to believe. Individually, there are many plants which can help alleviate the storage problem if they will adopt a cooperative attitude with the Government rather than an attitude of dumping the entire problem on the Government. Free enterprise includes a lot of things besides a good-looking profit and loss statement.

It is trite to mention that the Government does not have storage space for all the machine tools and equipment and other property to be stored. Wherever the contractor has ample storage space, or can assist us in providing storage for the tools and equipment in his plant for a temporary period, we expect to seek his cooperation. The wise contractor will figure out in advance where he can store the machine tools and equipment in his plant or elsewhere until the Government is able to remove them, rather than optimistically looking out of the window for the government truck to back up and take them out. The policy of the Government is to remove these tools and

equipment promptly but, after all, it is necessary to be awake to the realities of the situation.

The Disposition of Property

The disposition of property is a difficult problem. Standard forms have recently been developed for the submission of termination inventories by contractors, separate forms having been developed for (1) raw materials, purchased parts, and supplies, (2) work in process, and (3) jigs, tools, dies, fixtures, etc. These inventory forms, which provide for a description of the property, the cost of the property, and other information, are to be filed by contractors in support of their formal claims. They are also designed to serve as written statements showing the property acquired by the Government in connection with final settlements. If all or any part of the termination inventory is retained or disposed of by the contractor, an appropriate credit for the disposal value of the property is allowed by the contractor in his claim, and the credit values are shown in the inventory forms which support the claim. The contractor may have finished items, raw materials, tooling, gages, and work in process remaining on his terminated contracts. Finished items on the prime contract present no problem because they are paid for at the contract price and can be removed promptly. However, the disposition of materials, tooling, gages, and work in process takes time and involves many ramifications. These materials, tooling, gages, and work in process may be retained by the contractor, or they may be sold and disposed of either as usable property or as scrap, and if not retained or otherwise disposed of, then title may be transferred to the Government. In such case, the surplus property will be removed if the Government has storage space available; if not, a storage agreement will be entered into with the contractor for storage of the property until it can be removed by the Government. The surplus property is then reported to the responsible Disposal Agency previously mentioned, such as the Treasury Department, and such agency handles the sale and disposal of the property, including the removal from the contractor's plant if it is being held under a storage agreement.

The Contractor's Accountability for Termination Inventories

In this connection, may I mention that the accountable responsibility for termination inventories, on which full payment has been

made in the settlement with the procurement agency, should not be overlooked. There is no intention of being picayune but, after all, you should expect to deliver up the weights and quantities for which you have been paid when the Disposal Agency requests you to "deliver the goods." This is one of our perplexing difficulties today. Experience shows that it is necessary to insist upon verifying weights and counts in many cases. We do not believe that contractors are dishonest or that they are trying to "load their claims." But, we know that discrepancies do occur. We know that you, too, operate through people. To illustrate, when a claim included 59,000 feet of an item but there was only 55,000 feet upon being checked out, the difference was $3,200; when a claim included 102,000 pounds of an item but there was only 95,000 pounds when disposed of, the difference was $5,300; when a claim covered a piece of equipment said to be 90 per cent completed and a charge of $7,200 was made against the full price of $7,500, and it developed that the machine was only 30 per cent completed, the difference could hardly be sustained as "trivially inconsequential." Our job is to protect the interest of the Government, and you should expect to "deliver the goods" for which payment has been made.

The privilege extended to prime contractors to store property at the expense and risk of the Government when not removed by the procurement agency within 60 days after a termination inventory is filed and demand for removal is made has not been extended to subcontractors. Thus, the Government does not assume risk of loss or expense of storage of subcontractors' property when and until the property is removed by the Government or a storage agreement is entered into.

The Job to Be Done

So much for the general policies as to what can be done. The big problem is what will be done. If contractors and the procurement agencies pursue a vigorous policy of finding other uses for property and disposing of it wherever possible, much time can be saved in making final settlements. At the present time, every effort must be made to divert these inventories to other uses in the war effort. This requires a reasonable amount of circularization. I realize there are some unusually "hard" cases like the Ford Motor Company situation, but for the great majority of plants, the job is roughly this: raw materials present no great problem; if they cannot be disposed of,

title will be taken in the Government. The disposition of tooling and gages is not particularly burdensome. If they are standard and there is no other use for them, title will be taken in the Government. If they are special, and there is no other use for them, they should be, and ordinarily will be, scrapped. Work in process, however, is the big difficulty. At the present time, the great bulk of Ordnance work in process has a value only as scrap. When V-Day comes, work in process in the great majority of cases will have no commercial use on a profitable basis. Work in process which has a value only as scrap should be scrapped. It is the price we must pay for the birth of Mr. Hitler. It should not be removed from the contractors' plants and placed in government warehouses, nor should it be inventoried, boxed, and stored by contractors in their plants for the account of the Government. To remove property which has no value except as scrap from a contractor's plant to a government warehouse, or to inventory, box, and store it in a contractor's plant for the account of the Government, is a great economic waste and does not benefit the contractor and will not expedite settlements.

Courage and Hard Work Required

The disposition of property takes courage and a lot of hard work. It takes intestinal fortitude to authorize the sale of steel rounds at $40 a ton which cost $74 a ton, even though this was the best price obtainable because the market was flooded. It takes guts to authorize the sale of tubing at $45 a ton which cost $135 a ton, even though this was the best price obtainable and the buyer lost money in resizing it. It takes courage to scrap $110,000 of special cutting tools, etc., at less than one-half of one per cent of the cost. It takes guts to scrap $200,000 of finished and partially fabricated parts and fix a scrap value of $38. If those of us on the gvernment side are going to have courage to authorize sales of property at sacrifice prices and not take the easy way by merely taking title in the Government, we expect industry to do its share in helping to obtain the best prices obtainable. Furthermore, if we are going to scrap surplus materials, tooling, gages, and work in process, we expect industry to accept its responsibility and see to it that such property is actually scrapped in line with the policy of the Government. We do not establish policies in the procurement agencies; we merely try to carry out established policies.

If property is not retained by the contractor and cannot be dis-

posed of, the policy is to take title in the Government. But taking title in the Government should be the last step and not the first step in the settlement of a claim. Contractors should make every effort themselves to use the property, or to dispose of it if they cannot use it. Property which has no value except as scrap should be scrapped. If a determined effort is made to find other uses for property, to dispose of it, or to scrap that which has no value except as scrap, and turn over to the Government only that which cannot be disposed of or should not be scrapped, settlements will be expedited and a great economic waste avoided. Let us hope that this job does not degenerate down to merely taking title in the Government. It can very quickly unless industry and those of us in the Government give more than lip service to the word "courage."

Subcontractors' Claims

The settlement of claims of subcontractors is another important problem. By and large, subcontractors have not known what to do. Prime contractors have not told them. Neither have we. Nor have subcontractors found out for themselves. No one is necessarily to blame. As prime contractors become more familiar with contract terminations and establish adequate systems in their own organizations, much better results in the settlement of subcontractors' claims will be accomplished. Recent experience shows that much progress is being made along this line.

The procurement agencies of the War Department may extend authority to prime contractors, as well as to down-the-line subcontractors, to make complete settlements of their subcontractors' and suppliers' claims, where the entire termination claim of each subcontractor or supplier, before disposal credits, is less than $10,000. Contractors, in such cases, will have full power to authorize the disposal of property by their subcontractors and suppliers at the best prices obtainable, regardless of the disposal value or loss sustained, without approval of the contracting officer. Of course, the procurement agencies must first find that the contractor has established an adequate system for reviewing the claims of the subcontractors and suppliers and for examining the credits allowed by them covering the disposal of property allocated to the claims. Many prime contractors have been reluctant to accept this responsibility, because they prefer the stamp of government approval to avoid the possibility of criticism. At the present time, at least 50 per cent of the contractors

have no system at all for such purpose, but with patience and a little better understanding of the job involved, this matter can be worked out.

The Prime Contractor's Responsibility

In making such review and examination, contractors are "held to the same degree of care that a business man would employ in the conduct of his own affairs, but will not be required to warrant the accuracy of the statements contained in the papers" reviewed or examined. The certifications to be made by contractors on such claims do not commit them to do anything more than an ordinary prudent business man would do. Certainly, the Government expects a contractor to be at least an ordinary prudent business man. An office review, at least, of the claim and supporting papers submitted by the subcontractors and suppliers is required by qualified personnel of the contractor. Whether or not a spot-check of certain items in the claim, or even a complete field audit, is required by the prime contractor in certain cases depends, of course, upon the nature and complexity of the claim, the integrity of the subcontractor, and the indication of other facts which would show that an improper claim has not been filed.

On claims of subcontractors and suppliers in excess of $10,000, the primary responsibility for checking the claim is upon the prime contractor in the same manner as above mentioned. The procurement agency may verify the claim independently, and usually will, if it is a large claim or one that is complex. Likewise, the disposal of property on such claims is subject to the approval of the contracting officer. This involves a great deal of paper work back and forth between the procurement agency, the prime contractor, and subcontractor, but the progress being made in the settlement and verification of subcontractors' claims is encouraging.

Progress in Speeding Settlement of Subcontractors' Claims

Much progress is being made in the War Department in speeding up the handling of subcontractors' claims. For example, among the 13 Ordnance Districts, we generally follow the practice of referring a subcontractor in another District to the other District for complete handling. The District in which the prime contractor is located delegates all phases of the subcontractor's claim to the District in which the subcontractor is located, with the result that all of the details—

the verification and property disposal—are handled in the same locality as the subcontractor. This system is improving gradually with splendid results.

Also, where we have a subcontractor in one District making components for prime contractors in several other Districts, we refer the matter to the District in which the subcontractor is located. This District office approves the allocation of charges, expenses, etc., among the various prime contractors, approves the disposal of property, and certifies to the various prime contractors the part of the claim applicable to their particular contracts.

Reasons for Delay in Settling Subcontractors' Claims

The delay in the settlement of subcontractors' claims is not so much the system for doing the job as it is the time required to correct things that should not have been done. Many contractors do not seem to understand what can and cannot be allowed, and until they take the time to find out, they cannot expect prompt results. Many subcontractors seem to think they can "get away with" supplying the necessary data to support their claims; or that cost information is a lot of nonsense; or that the tax collector will pick up any overcharge anyway; or that the rules laid down do not apply to them because they are not prime contractors. Subcontractors have a large part to play in helping themselves to obtain expeditious settlements. Including in a claim tooling charges which have already been charged off or used on other work; including items of a capital or semi-capital nature previously charged off as expense; allocating burden and overhead in utter disregard of the established method of handling such items and without any explanation as to the basis for such deviation, are examples of common causes for delay.

We are not playing a game to see how much you can get and how much we can knock off. All we want is a claim for every cent you are entitled to—and no more—submitted in accordance with the policies established. We, on the government side, must not be picayune or sharpshooters, but you, on the other side, must include only items that are properly allowable as cost and profit and support your claims with sufficient data, so that we on the government side can understand why your claim is fair to you and to the Government. After all, we in the Government do not know all the answers about your business and your method of operation, and we do appreciate good salesmanship in educating us on your problems.

Let us remember that the American taxpayers will not object to negotiated settlements if we keep a clean house and throw our settlements into an open bowl where they can be examined without fear of criticism. And may I repeat that free enterprise involves responsibilities as well as privileges.

The most important thing is the approach to the job to be done. I commend to any subcontractor an article on "Subcontractors' Problems" by Henry C. Perry, Treasurer of Heywood-Wakefield Company, which appeared in a recent publication of the Controllers Institute. Let me quote two excerpts from that excellent article:

> A battle of wits and the slide rule process are subordinated to recognition on the part of both (the subcontractor and the prime contractor) that technicalities and a desire to obtain the last pound of flesh are the customary reasons for delay in all such negotiations. . . . Negotiated settlements are a problem only if you make them so. If you use the ordinary methods of business procedure, those involved in the customary practices of your Purchasing, Production, Engineering, and Collection Departments, and introduce a little sales psychology as well, there is every reason to expect the average successful result. If you resist and haggle about the technicalities of Governmental procedure, particularly those over which your Prime Contractor and your Contracting Officer have no control; if, in fact, you adopt the "smart aleck" complex, and the padding of claims, along with this slide rule philosophy, then you should expect the results that go with the contentious and controversial treatment of an ordinary business transaction. It is your job to decide which course to take.

The Verification of Claims

The verification of claims by the Government is not particularly difficult; it just takes time. We make either an office review or a field audit. An office review is merely looking over the claim papers that are submitted and determining from the face of it whether or not the claim appears to be in order. A field audit, on the other hand, necessitates an investigation of the books and records of the contractor. An office review is popular with contractors, as you can well understand. But, an office review is not sufficient in many cases and usually not on the first cancelled contract. How can we protect the

interests of the Government and determine that the claim includes only the costs and expenses properly allocable to the contract if we do not know how the contractor submitted his claim?

Experience shows that on the average claims are being settled at about 75 per cent of the amount originally filed. In other words, certain items are allowable as cost and expense, and certain other items are not allowable. We cannot determine whether the claim is fair and proper unless we know the contractor's accounting system and the method that he follows in submitting his claim. What we try to do is this: On the first cancellation with a contractor, we make a rather complete audit of his claim and review with him the various items that are allowable and not allowable in connection with the settlement. At the same time, we get a picture of the contractor's accounting system and determine whether or not his claim is submitted in accordance with recognized accounting practices. With this information and with the contractor understanding what can and cannot be allowed, we have little difficulty on subsequent cancellations. Field audits are not necessary on subsequent cancellations except to spot check certain elements of cost and expense. In many cases, we can determine from an office review that the claim as filed is proper. When mass cancellations come, we fully expect that complete field audits will not be necessary in very many cases, (1) because of the information we have obtained during the current terminations, and (2) because of the understanding that contractors will have as to what can and cannot be allowed. When that day comes, we fully expect to process the great majority of claims either by an office review or by spot checks of certain items of cost and expense.

Let Us Work Together

All of us are interested in prompt reconversion on V-Day. One of these days, soon we hope, but not too soon we fear, the "horse will be hungry"—hungry for working capital to get peacetime capital and consumers' goods on the market ahead of, or at least along with, his competitors. The termination job is a big job. Sometimes the magnitude of the big cases or the unusually difficult cases lead us to believe that all cases fall into the same category. This, of course, is not true. The great majority of claims, and in fact most claims, can be settled expeditiously if we buckle down to the job, understand how it is done, and have courage to get it done. Let us both

share the responsibility and the job. Let us not get so bogged down with fear, lack of understanding, and technicalities that only a limited few, who are fearless, well-informed, and determined to reach quick final settlements, get to the peacetime market first. Let us not expect either industry or the Government to do the whole job. Let us work together. Let us have patience and tolerance, with fairness and simple honesty on both sides. And most of all, let us get down to work and plough through the details and paper work which is the hard way but the only way, in the final analysis, that the job can be done. In short, let us get the job done and curse Hitler the rest of our days for the confusion and difficulties involved in the wilderness of total war. And, may we remember that when we cease to have confusion, we need not worry about democracy because we will not have it. After all, democracy and free enterprise are what men have been fighting and dying to preserve in this country.

Chairman Peloubet: Judging from the length and strength of that ovation, I was not quite sure which convention I was in. I think the best comment that could be made on Colonel Downie's speech is that all of us ought to try to get every contract that we can terminated in the Pittsburgh District.

Our next speaker will be a little more specific and get down to facts and cases a little more. I do not think that George Bailey needs very much introduction to any meeting of accountants. I think almost everyone has read his articles and almost everybody knows that he is a Vice President of the American Institute; that he has been very active in the affairs of the Institute; and that he has for more than a year done a great deal of valuable work as Chairman of the Institute's Committee on the Termination of War Contracts. Mr. Bailey is Resident Partner of the firm of Ernst and Ernst in Detroit.

In spite of that splendid talk of Colonel Downie's, there was one thing in it with which I could not agree. I could not go along with him at all on one point. That is when he said that it is not a good policy to shift things and to allow George to do it. I think we should allow George to do it, and that is what we will do right now.

COST PHASES OF WAR CONTRACT TERMINATION

George D. Bailey
Partner, Ernst & Ernst, Detroit, Mich.

At LONG LAST, the country has legislation for dealing with war contract terminations and claims for reimbursement thereunder. It has been a long time in the making, but the Murray-George-Walter Bill as finally passed by Congress will, I believe, prove to be a good law, under which prompt, fair, and final settlements of termination claims can be made. Congress, particularly those Senators and Representatives who have had the responsibility for developing this legislation, has worked hard and long in studying a most complicated problem and deserves credit for the result. Now all the plans that have been in the making, all the tentative procedures that have been developed, all the lessons that have been learned in the actual practice of settling claims, can be brought together to provide for procedures that will permit the maximum speed in the preparation of and the settlement of claims or settlement proposals. The legislation makes it possible to have uniform procedures for all services, to avoid duplication of effort, and to give the flexibility of treatment which is so greatly needed if settlements are to be made promptly.

I am going to deal only with cost phases of termination claims. Even there I shall have to avoid related discussions of accounting and auditing and detailed discussions of many costs, all of which are very tempting. I propose to deal with the underlying philosophies and basic rules of cost allowance and with a few of the individual cost problems which seem to me to be most illustrative or most controversial.

Comptroller General

No plans with respect to accounting or costs could be made with finality until it was clear what would be the position of the Comptroller General and his General Accounting Office. If no settlements were to be final until approved by him, then substantial changes would have been required in procedures already developed and in the amount and kind of data required. The new legislation has finally settled that question. The Comptroller General and his General Accounting Office are given the responsibility of investigating settle-

ment procedures and settlement policies and reporting thereon to Congress, but are not given any responsibility or authority over the determination of the amount of the claim to be allowed. This puts the Comptroller General in much the same position as that of an independent public accountant in his traditional capacity, who examines methods and procedures and the care with which those methods and procedures are carried out, and reports thereon to the Board of Directors but is not expected to pass upon the wisdom of administrative decisions. This final decision seems to me to be wise. The Comptroller General can operate on that basis, and the protection which that basis gives is very great.

Negotiated Settlements

The new legislation gives specific authority for the settlement of claims by negotiation. While the negotiated settlement is an agreement between the Government and the contractor on the amount of the claim, the amount is not developed in a vacuum. Under proper procedures there will be a great deal of data available for the consideration of both parties. But before a claim can be negotiated it must be filed. And the preparation of a claim, generally speaking, involves factors of accounting and cost determination. Therefore, while the settlement when negotiated may vary from a formula, the claim itself must be prepared with reasonable observance of a cost formula. It must also be prepared in some detail and with such explanations as seem appropriate in the circumstances. Thus, in all but the very simple claims, accounting and cost determinations will play a dominant part in termination settlements.

Basic Definition

The basic definition of cost is contained in the "Statement of Principles for Determination of Cost Upon Termination of Government Fixed-Price Supply Contracts," which was approved by the Joint Contract Termination Board under date of December 31, 1943, and incorporated in the Uniform Termination Article released by the Baruch-Hancock group on January 8, 1944. This statement in most particulars had been developed over a period of time by the various services working together, and after its publication it was accepted by Congress as a proper basis of cost allowance. It is to be expected that under the new legislation it will be continued as the basic statement. Accountants have been almost unanimous in the belief

that it would be unwise to incorporate too detailed a definition of costs within the legislation itself, and they will be glad to see that the legislation has defined costs in broad terms and left more detailed definition to the rules and procedures to be issued by the new Director and the services. This permits opportunity for elaborations or changes in emphasis in definitions as practical experience shows such changes to be advisable.

It is necessary that there be uniformity of cost interpretations among the various government procurement agencies. I assume that there will be continued, in substantially the same form, the Subcommittee on Costs of the Joint Contract Termination Board. This subcommittee on costs is now made up of representatives of the various services, under the chairmanship of Commander J. Harold Stewart, a man of wide experience in public accounting, and includes other men who have a thorough understanding of cost accounting theory and practice. This subcommittee has been working on a number of cost interpretations, and if it is continued it can be expected to carry out a policy of issuing cost interpretations from time to time, not only to clear up individual points, but to provide criteria by which other points can be decided.

The reference to costs in the Murray-George-Walter Bill is that the contractor shall be given fair compensation, including such profit on the preparations made and work done for the terminated part of the contract as is reasonable under the circumstances. It provides that each contracting agency shall establish methods and standards suitable under the conditions of the various war contracts for determining fair compensation on the basis of actual, standard, average, or estimated costs, or of a percentage of the contract price based on the estimated percentage of completion of the work under the terminated contract, or on any other equitable basis that is deemed appropriate. To the extent that such methods and standards require accounting, they shall be adapted as far as practicable to the accounting systems used by the war contractors, if consistent with recognized commercial accounting practice.

Again, it is provided that the Director may provide for the inclusion or exclusion of costs in accordance with recognized commercial accounting practice.

If the Statement of Cost Principles above referred to continues, as I expect it to, there is a further general statement of cost as follows:

General Principles: The costs contemplated by this Statement of Principles are those sanctioned by recognized commercial accounting practices and are intended to include the direct and indirect manufacturing, selling and distribution, administrative and other costs incurred which are reasonably necessary for the performance of the contract and are properly allocable or apportionable under such practices to the contract (or the part thereof under consideration).

Recognized Commercial Accounting Practices

The important part of the general definition, it seems to me, is the principle of allowance as costs of those which are sanctioned by recognized commercial accounting practices. If the term "recognized commercial accounting practices" means anything, it seems to me it must mean costs incurred by the contractor in good faith in the conduct of his business. Thus it rules out any such narrow interpretation of applicable costs as has been followed under accounting for cost-plus-fixed-fee contracts. The term implies, I believe, recognition of the same kind of expenses for termination claims as is generally recognized for renegotiation, subject, of course, to some specific limitations and to tests of reasonableness. This is entirely sound. The contractor, undertaking and working on a contract he expected to complete, entered into various kinds of expenses which he believed necessary or advisable to carry out the contract, or which he thought were necessary to keep a business going so that it could operate on government contracts or any other business. When a contract is terminated the contractor loses the revenue that he expected to earn to cover all these expenses. It is only fitting, therefore, that upon termination his reimbursement of costs should provide for all the general business expenses in proper proportion. The specific cost discussions contained in the Statement of Cost Principles show clearly that this is the intent, as does the separate sentence of the law already quoted.

The term "recognized commercial accounting practices," however, requires some further analysis. There is, of course, no such body of cost accounting authority as would give specific answers to all problems. In fact, the broad principle of cost allowance is probably merely the equitable application of direct costs and proration of joint costs. But the term does mean, I believe, that the determination of what are recognized commercial accounting practices

must be on an objective basis. It cannot be merely on the basis of what a few government men think ought to be, nor can it be merely on what a contractor thinks ought to be. The determination must be made on the basis of what a representative group of experienced cost accountants would consider to be fair. This term does put the Government in a position where it cannot go contrary to generally accepted sound practice. It puts the contractor under the same restrictions. The use of this term, it seems to me, requires that the interpretations issued by the aforementioned subcommittee on costs consider outside opinions. So far that subcommittee has gone to considerable length to obtain opinions of accountants outside the Government before coming to any conclusions.

Contractor's Own Accounting

Both the legislation and the Statement of Cost Principles provide that the accounting methods and systems of the contractor shall be given great weight. The law provides in addition that they must be consistent with recognized commercial accounting practice. Obviously this does not mean that the contractor's own cost accounting will be accepted without applying outside objective tests as to whether the method of accounting does in fact provide reasonably accurate costs. It seems to me that the general effect of this is to require that the cost and accounting practices of the individual contractor must be tested against generally recognized practices. This test is particularly important because cost systems generally have been devised for a peacetime product and to provide information for the management, and have not been concerned with providing information for outsiders. They customarily have not dealt with all the costs that will be allowable upon termination. In many cases it was not required that they be accurate in the allocation of joint costs between departments or between products. Standard costs, in some cases, were not customarily tested against actual cost, nor were the standards often set on the basis of total anticipated costs. All this means that the cost accounting system of the contractor will have to be examined from the standpoint of whether it does result in a determination of the total costs and whether the allocations of joint costs are made upon a basis which would be approved by a group of trained cost accountants with an objective approach.

The whole philosophy of termination procedures is to provide equitable and fair settlements. On that basis I feel confident that

accounting systems and records which are essentially fair will be accepted, and that they will not be condemned because of technical imperfections or the absence of meticulous detail.

Forms

Forms have been prescribed by both the Army and the Navy for the preparation of claims for presentation to the respective departments. The difference between the two is not great and it is to be hoped that that little difference will be resolved by the new Office of Director of Contract Settlement. The forms are rather specific. There is no need to discuss them in detail at this time since many of you are familiar with them, and copies are now available.

Claims prepared by subcontractors for presentation to prime contractors will probably have to be prepared on these or similar forms if the claim is at all complicated or large. Thus it is important for each contractor to examine these forms at an early date to see whether the information called for can be supplied by his records.

The Subcontractor

At the present time the claims of the subcontractor are the responsibility of the prime contractor. The settlement channels are the same as procurement. The machinery so far developed provides for clearing subcontractors' claims only through prime contractors. Nevertheless, the procurement agencies retain for themselves the right and responsibility of examining any claims of subcontractors that appear to need examination. The agencies, of course, must be consulted with respect to the disposition of any tangible assets connected with the subcontractors' claims. Recently some procurement agencies have been authorized to delegate to prime contractors complete authority to settle claims of subcontractors under certain amounts to be specified, but not to exceed $10,000. Such authority is being granted to contractors who are able to demonstrate that they have the machinery, the personnel, and the knowledge to settle claims of subcontractors on an intelligent basis. This is an important delegation of authority particularly when it comes to dealing with the small claims under $1,000 which constitute a majority of all subcontractors' claims.

The new legislation provides the legal authority for direct settlements between subcontractors and the Government, for group settlements, and company-wide settlements. Since the necessary legis-

lation has just passed, the detailed regulations under which such direct settlements may be made have not yet been issued. It seems safe to say that procedures will be authorized which will permit the use of direct settlements in cases where they are clearly appropriate, will permit the use of company-wide settlements when there is justification therefor, and will give authority for one service to settle claims for all services in one single plant or company. Already procedures are being tried out where government representatives are placed in important plants for the purpose of providing accounting and other termination data for any prime contractor or service interested, thus avoiding duplicate examinations and investigations.

Physical Assets

One of the first things to be done upon termination will be to take a physical inventory of all the tangible items connected with the terminated contract or with respect to which a cost may be included in the claim. This calls for careful advance planning, with respect to which you will hear more from other speakers. But it seems appropriate for me to mention that the inventory should include not only productive material but also expense materials and facilities, including any facilities on which partial or complete loss is to be claimed as a result of the termination.

Total Cost Versus Inventory Basis

The regulations so far developed provide that the contractor may select either a total cost basis for his claims or an inventory basis. The total cost basis permits inclusion of all costs incurred up to the date of termination and the allowance of a reasonable profit at a rate indicated by the portion of the contract already completed; from this would be deducted, of course, the payments that have already been received or are to be received for completed articles delivered. Theoretically, this would require only the listing of the tangible assets without pricing, though it is probable that in actual practice pricing will be requested. This method probably will be most useful for contracts in the early stages of production, contracts which have been difficult to get into smooth production and contracts which involve difficult problems of repricing or redetermination. Where the profit on delivered articles is large, this method will provide a measure of preliminary renegotiation, particularly if an over-all ceiling

of 6 per cent for profit is applied, since the profit already taken would be credited against the total profit to be allowed.

The inventory basis probably will be the one most generally used. It will start with listing the inventory, pricing it at cost in accordance with the company's usual procedure, and then adding to that cost the proper part of the expense items which are not included in the factory cost but which are properly allowable. The profit received on finished articles already delivered would not affect the calculation of the claim.

There are many cases in which the total cost method will be found to be preferable to the inventory basis, and contractors should make a careful study to determine in advance which method is the better.

Advance Decisions

There are a number of accounting and cost matters on which agreement can probably be reached with the Government in advance of actual termination. For many companies there will be doubt as to whether the accounting system will provide adequate information for termination needs. Where that doubt exists, it should be possible to confer with a termination representative of a procurement agency and to have him review the adequacy of the records and the soundness of the policies being followed. Advance approval ought to be obtainable on allocation of joint costs, information needed on inventory, how to treat the initial expenses, and selection of total cost method or the inventory basis. In addition, there might be advance approval on the disposition of tangible assets, the entire costs of which are to be included within the claim and with respect to which the Government may have certain property rights. Lastly, it seems to me extremely important that there be advance discussion of the allocation of and propriety of termination expenses. Where a company has a termination department which devotes all of its time to termination problems, the cost thereof after termination can undoubtedly be handled by proration. But even so, there will be areas of doubt, such as costs incurred when the activities of the termination department are being directed to problems of contracts not yet terminated as well as to terminations already made. There can well be advance decisions on the proper proportion of administrative expenses to be included in termination costs. For companies which do not have a separate termination department, the difficulty of determining how much administrative or clerical time is being devoted to

termination is so great as to suggest that advance negotiation of this problem is highly desirable. Arbitrary allocations of administrative expense are not ordinarily auditable and for that reason provide difficult areas for government approval.

Costs of termination are not an integral part of the costs incurred up to the date of termination. They are allowed to the contractor only because of specific provisions in the law or contract. That being so, post-termination costs must be strictly within the regulations or the agreement. Generally speaking, it can be assumed that the test of the propriety of items to be allowed as post-termination costs will be a strict one. It will prove helpful, I am sure, if termination costs are segregated on the books.

Specific Cost Items

The Statement of Principles for Determination of Costs Upon Termination of Government Fixed-Price Supply Contracts, to which I have frequently referred, brings out and discusses a number of specific classes of costs as to their inclusion in or exclusion from the claim. These are important not only for the light they shed on the general interpretation of the broad clauses in the basic definition but also because they deal with perplexing problems deemed sufficiently important to require some special comment. In addition, the practices of the services to date shed light on the type of item which is likely to be allowed or disallowed. I will therefore discuss briefly some of the special points included in the Statement of Principles as well as some of the special policies of allowance or disallowance as they appear to have been worked out by the procurement services.

Direct Charges Versus Overhead

There will be many cases in which charges which are properly allowable considered by themselves will have to be related to the treatment of overhead. Some items will be so specific and unusual that they cannot be considered to have been in the overhead rate either through the item itself or through the inclusion in the past of other special items. On the other hand, there will be items which have been included in overhead and have had a bearing on fixing the overhead rate which cannot be applied as specific items without adjustment of the overhead. In this latter group, one of the most perplexing is the matter of handling charges. These are custo-

marily included in factory overhead and in many cases are not fully identified since the charges may extend considerably beyond the receiving department or other departments whose expenses are customarily kept separately. Handling charges to a very large extent arise at the early part of the contract, and yet when they are considered as part of overhead they are applied only in relation to all of the manufacturing process. Thus, for a contract terminated in the very early stages of the manufacturing process, the handling charges might all have been expended and yet there would be little, if any, productive labor against which to spread that overhead expense. It is not uncommon to find that a reasonable allowance for handling charges on raw material exceeds all of the factory overhead that is included in the claim on the basis of application of the overhead rate to direct labor.

It is very difficult to lay down any specific procedure or to give a categorical answer to the proper method of dealing with handling charges, but it does seem quite clear that handling charges must be carefully considered in the light of all the surrounding circumstances in order to arrive at a fair amount to be included in the claim. Ordinarily the treatment of factory overhead in the preparation of a termination claim must be considered in the light of the company's practices and after study of the basis upon which the overhead rate has been determined.

Common Items

Contractors have been quite concerned about the problems presented by inventory items common to several contracts, only some of which may have been terminated. These common items include finished assemblies, partly processed materials, raw materials, and purchased parts, and include as well the commitments that have been made to suppliers for raw materials or for manufactured parts. The Statement of Principles is quite brief on this point and gives authority for the inclusion of common items but does not discuss the methods of determination. It would be entirely consistent with the basic philosophy of the termination procedures if the contractor's own record with respect to the intended use of common items were given considerable weight. Many contractors' records show the specific contract involved when orders for processing are released to the contractors' production departments, when delivery orders are given on raw materials, or when orders for raw or processed materials are

given to vendors. In the absence of adequate records, of course, the allocation will have to be made on some sort of a reasonable proration, in which it may be possible or necessary to consider the period of time normally required for procurement and fabrication.

With respect to materials not clearly indicated as applicable to the terminated contract, it is probable that the procedures will require an allocation to the reasonable needs of unterminated contracts and that only the amount not so required will be considered for the terminated contract. The difficulty of that treatment would be to determine whether the amount to be assumed by the Government would be at the low end of the production scale or at the higher end. It might be to the Government's advantage if the unallocated material considered to be applicable to the Government were assumed to be from the most recent purchases or most recent commitments. There is some merit in that position. On the other hand, there seems to be considerable danger in any arbitrary allocation of the most processed items to the unterminated contracts. A general allocation of material by classes would ordinarily be safer and probably more equitable.

Depreciation and Loss on Facilities

The definition of depreciation appears to be broad enough to conform with the usual commercial practice followed in establishing depreciation rates, namely, to provide not only for wear and tear, but also normally anticipated obsolescence due to progress in the arts. Ordinarily, depreciation rates taken on the company's books would be compelling, but the rate would have to be checked against rates taken for tax purposes and the rates normally taken before the war period. Consideration undoubtedly will be given to any increase in normal rates for increased use, but this increased basis again would need to be compared with what was being allowed or expected to be allowed for income taxes. Depreciation as such does not include the five-year amortization of emergency war facilities, as this amortization is to be allowed, if at all, only in the consideration of loss of useful value. Ordinarily, a pro-rata part of a loss of value of a facility purchased especially for the contract, for example, would be allowed. This loss in value would have to be prorated over the terminated contracts and other contracts on which the facility had been used. This general rule, however, is subject to two other limitations, one of which is that recovery cannot be made to a greater ex-

tent than the adjusted tax basis immediately prior to termination, and, second, that recovery shall be permitted only on condition that the contractor protects the interest of the Government by transfer of title to the facilities or by other means deemed appropriate by the contracting agency.

This matter of transfer of title on such facilities is one of the most perplexing and difficult problems of the whole termination procedure. As a fundamental principle it cannot be objected to, since the Government should have the right to take over any facility for which it pays in full. Nevertheless, actual transfer of title is a very difficult thing, and becomes increasingly involved when the facility in question is common to a terminated contract and to other contracts of like nature which have not been terminated. It is interesting to note that the original Termination Accounting Manual made no reference to the adjusted tax basis. This limitation first appeared in the Statement of Principles. It disappeared in the statement of cost standards intended for use in several of the House bills on termination. The inference is that experience is already disclosing some practical difficulties.

This point also illustrates the advantage of having cost definitions fixed by the Director of Contract Settlement rather than by legislation, since a procedure that proves impractical when tried out in actual cases can be readily changed when handled by directive, but can only be changed with great difficulty if it is specified in the law.

The provision that there must be transfer of title to tangible assets will undoubtedly act as a deterrent to a claim for losses thereon as part of cost, particularly on the emergency war facilities subject to the five-year amortization.

General Experimental and Research Expense.

General experimental and research expense and advertising expenses are specifically referred to in the Statement of Cost Principles. This, I believe, is helpful, because it brings out clearly the intention to allow expenses which are necessary to the running of a business but which may not be specifically related to a terminated contract. Experimental and research expenses are allowed to the extent consistent with an established prewar program or to the extent related to war purposes. This particular paragraph needs amplification by cost interpretation to bring out what is meant by the reference to "established," and what is meant by "consistent." For

instance, many companies had to give up general research and development work during the early part of the war but may be able to take it up with extra emphasis toward the end of the war. Does the word "consistent" relate to a similar dollar amount, does it relate to a similar activity, or is it relative? The importance of the second phrase dealing with the relation to war purposes lies in the fact that the expense may relate to other war activities than represented by the specific contracts on hand and this phrase would permit proper consideration of the expense of a development program on articles for war purposes not covered by contract. I suspect that the ultimate cost interpretation for this class of expense will still be somewhat broad as there are so very many variations in actual practice that room must be left for dealing with the expense on an equitable basis. Perhaps it will be on items of this kind that the negotiated settlement procedure will be most useful in settling arguments.

Advertising Expense

Advertising expense, like general experimental and research expense, should be allowed to an extent consistent with a prewar program, but, unlike the further provision on research, it may also be allowed to an extent reasonable under the circumstances. The relation of advertising to a prewar program is relatively easy to establish, but allowance to an extent reasonable under the circumstances will be much more difficult. There is an indication of the meaning of "consistent with a prewar policy" in the Termination Accounting Manual. Here, again, in a cost interpretation, room undoubtedly will be left for equitable treatment.

I would assume that there would be allowed in the overhead the cost of normal programs of advertising and research undertaken and carried out in good faith and not undertaken merely because high profits taxes lessen the net cost. Expenditures in either class which appear to abuse the privilege will undoubtedly be challenged.

Engineering and Development and Special Tooling

This paragraph of the Statement of Cost Principles is intended, I believe, to cover generally the items of production engineering and the costs of special tooling. Here again, however, the residue of tangible assets must be accounted for to the Government. A presumption of complete loss without any residual value is quite strong,

and the items should be handled with less difficulty than could be expected in the allowance for loss on facilities.

Special Leases

The allowance for leases is quite specific and properly so, because the costs involved in leases are those which occur after the termination of the contract. Apparently it is the intention to allow the cost of terminating the lease or the other costs of rehabilitation of the leasehold property which may be required under the lease. In this whole section of the statement the philosophy of allowance differs quite definitely from the allowances made to contractors for use of their own property. The latter ceases when the contract is terminated or the Government has no further use for the property. I assume that only the ratable cost of the restoration of the leased premises, for instance, will be allowed in a termination claim since the restoration cost applies to the entire period of use of the property.

Interest

Interest is specifically mentioned, probably because of the difference in practice between the services which had previously existed. In addition to interest paid or incurred, the new law provides for interest payable to the contractor on the amount of the settlement at the rate of 2½ per cent.

Initial Costs

All those costs which occurred at the beginning of the contract and are generally classified as starting load, including even the cost of inefficiencies at the early stages of the contract, are specifically stated to be properly applicable to the entire contract. This is an extremely important paragraph because it recognizes the well-known fact that the early stages of any contract, both prior to manufacture and for some time after it is started, are periods of abnormal expense. The segregation of initial expenses and starting load inefficiencies is important from several standpoints. The treatment of this abnormal expense will have an influence on the amount of unrecovered costs which are a proper part of the claim and also on the determination of the indicated rate of profit. Failure to deal with this class of expense may cause a presumption of loss on the entire contract which would be difficult to rebut.

Limitations

There are a number of basic limitations on cost allowances. One is that such special allowances as advertising, research, and losses on facilities, leases, and tooling shall not be allowed to an extent greater than would have been recoverable had the contract continued to completion. Another is that all of the costs shall not exceed the total amount of the contract price of the entire contract less any amounts paid thereon. And third, there is the very difficult limitation that costs which were charged off during the period covered by a previous renegotiation may not be subsequently included in the termination settlement if a refund was made for such period or to the extent that such charging off was shown to have avoided such a refund.

This question of the effect of renegotiation is perhaps the most controversial section of the entire cost statement. It means, in effect, where a company has been renegotiated for a given year and has made a refund, that failure to include costs in the inventory carried forward into the new fiscal year will result in the company not being able to include those costs in termination. In its simplest terms this prohibition can be illustrated as follows:

A manufacturer inventories the items applicable to a government contract at normal factory costs excluding the preliminary expenses, starting load inefficiencies, and other variances, and excluding also special tools that have been developed for that contract. On that basis the inventory may represent, let us say, 60 per cent of the total cost. The contract is terminated on the first day of the new fiscal year. The costs not included in the inventory figure were charged off and affected the amount of the refund. The inclusion of those items in costs for the termination claim would constitute a double benefit to the contractor, particularly if the termination turned out to be in a year in which no renegotiation refund would be required. On the other hand, there is bound to be a great deal of argument as to whether the company received any benefit in charging off such costs. For instance, the claim may well be made that the beginning of the renegotiated year did not carry forward all costs applicable to that year of the same kind and nature as the costs that were not carried forward at the end of the renegotiated year, and it may be demonstrable that the company did not receive any benefit from failure to capitalize the costs later sought to be recovered. The claim is likely

to be made also that administrative and selling expenses are so customarily not included in costs that the failure to have deferred them at the beginning of the year is of no significance.

There is, in addition, a great deal of practical difficulty in the way of giving effect to this general prohibition. It is difficult enough for the Government in dealing with the prime contract to find out whether or not the contractor has previously received the benefit of any expenses in renegotiation, but it is almost impossible for a prime contractor to make such a determination with respect to his subcontractor. The chief difficulty will arise, of course, in cases where there was no refund but where there is no evidence to show whether there would have been a refund on renegotiation if the items in question had not been deducted. I quite accept the necessity of providing for a consideration of the effect of renegotiation, because there are many cases where failure to do so would lead to a double recovery. It is important that the procedures be theoretically sound. The Comptroller General is charged with responsibility for reporting to Congress upon the adequacy of the procedures to protect the Government, and a loop-hole on this point might well be quite vulnerable to criticism. Nevertheless the theoretical uncertainties and the practical difficulties are such that it seems to me only time and actual practice can determine whether the necessity of the limitation is greater than the delay resulting from the extreme practical difficulties involved. I am one of those who hope that actual practice in this connection will be carefully studied and that the cost interpretations which may be released on this point will be kept sufficiently flexible to permit changes in procedures as such changes are indicated.

This exclusion of expenses of a prior year because of renegotiation, it seems to me, does not also exclude expenses merely because they were charged to expense in accordance with the company's regular accounting policy and not carried forward at the beginning of the year. It seems to me the intent is quite clear that only if there was a benefit in renegotiation are such prior year costs to be excluded.

Excluded Costs

There are certain general business costs which are expressly excluded from a terminated claim, such as losses on other contracts and on investments, losses on sale of capital assets, expenses for life insurance, reorganization, federal income tax litigation, or prosecu-

tion of claims against the Government. It is interesting that there is no specific exclusion of federal income taxes as expenses, but I have no belief that the failure to exclude them by specific reference will give any grounds for the inclusion of income or excess profits taxes as part of the company's costs applicable to a terminated contract. Reserves for contingencies and for similar future purposes are also to be excluded, as are expenditures due to the negligence of the contractor to discontinue with reasonable promptness the incurring of expenses after the effective date of the termination notice.

But most important of all is the specific exclusion of expenses for reconversion to civilian purposes of the plant and facilities either during progress of the contract or at its termination. In addition, though this is not covered either in the law or the Statement of Cost Principles, the expenses of the plant or organization made idle by the termination of the contract are not allowable either for the remaining time that would have been required to finish the contract or until the plant can again be put to use. The Government is in effect substituting procedures which substantially guarantee a cost recovery with a reasonable profit thereon and quick termination settlements for a long and involved process of proving the total profit that would have been allowed had the contract been completed.

The general costs of reconversion of industry to peacetime uses are not permitted in the termination procedures. I, myself, have no particular quarrel with that decision since there is no reason to provide for conversion costs only in connection with the terminated contracts and not to allow them for companies whose conversion problem is just as great but whose contracts have run to a conclusion. Nor do I mean to say that I believe conversion costs should be paid for specifically by the Government instead of through the application of present or improved procedures of the carry-back tax provisions.

In the same general class as conversion cost is that of dismissal pay. This ordinarily will not be allowed as part of a termination claim. This expense also has broad social and political implications not related to whether a contractor is allowed to finish his contract or required to terminate before completion.

Profit

About all that is provided for profit under the law and in the Termination Article is that profit shall be reasonable and related to the preparations for, and work done on, the terminated portion of the

contract. It is implied that the rate of profit indicated by the performance of the contract to date will have a substantial bearing. A negotiated settlement leaves the determination of reasonable profit to the contractor and the Government, but this cannot be negotiated with complete disregard of general standards. In case there is not a negotiated settlement, the Uniform Termination Article provides an over-all limitation of 6 per cent on the total applicable costs and specifically provides a limitation of 2 per cent on raw and unworked materials. The amount to be allowed on processed materials is not limited except by the over-all percentage of 6 per cent. This same limitation appears in the uniform article for subcontractors. The Navy appears to have been following a fixed profit allowance, while the Army in negotiated settlements appears to have been dealing on an over-all basis of a reasonable profit. Nevertheless, it is to be expected that the standard of profit allowance will approach the ceilings provided for in the formula settlement. It is also to be expected, if a contractor establishes a reasonable profit based on his actual operations, that he may find that the specific limit of 2 per cent on raw and unworked materials is not available to him. I suspect that even with the negotiated settlement the contractor cannot claim the favorable allowances of a formula settlement in some respects and eliminate the unfavorable allowances of a formula settlement in others.

Conclusion

There are myriad questions that have arisen or will arise with respect to proper treatment of costs. Some of these will be questions of wide application and some will have application only to single problems. The preparation of claims inevitably involves a substantial amount of accounting and cost determination. It is possible for the requirements for detailed information and for audit to be so meticulous as seriously to impede prompt settlements. Fortunately, Congress and governmental agencies are thoroughly alert to the necessity for minimizing accounting and auditing requirements. It can be expected that the procedures finally developed will permit the minimum of such requirements that is compatible with reasonable protection of the Government's interests. Procedures, of course, must be adequate to give that reasonable protection, and the Comptroller General is charged with reporting to Congress if he finds that the procedures are not adequate to do so. Business, however, has a

right to ask that the overwhelming good of prompt reconversion to peacetime activities be the controlling factor in termination procedures rather than unnecessary detail in the preparation of claims and in the auditing thereof. Reconversion must not be held back by one single day because of unnecessary accounting procedures.

CHAIRMAN PELOUBET: I think you have all learned a good deal through George, and I also think that what we have learned is probably so, which is equally important. We will reconvene again at one-thirty.

. . . The session adjourned at twelve-fifteen o'clock . . .

SESSION II

TERMINATION OF WAR CONTRACTS

MONDAY AFTERNOON, JUNE 26, 1944

MAURICE E. PELOUBET, *Chairman*

Charles R. Fay is Secretary of the Policy Committee on War Contract Terminations of the Westinghouse Electric & Manufacturing Company. Following his graduation in mechanical engineering from Purdue University in 1922, he worked as a machinist and production clerk with the Weidly Motor Company and as shop foreman with the Thomas Skinner Steel Products Company before joining the Westinghouse organization in 1925. With Westinghouse he worked successively in the Equipment and Methods Department, Stock and Routing Section, Production Department, and Raw Material Stores Department until 1930, when he participated in the installation of a standard cost system in the East Pittsburgh plant. Afterwards he continued in the Industrial Accounts Division and was made Assistant Director in 1934. In 1938 Mr. Fay was appointed Director of a new department of employee accounts made necessary by the enlarged social security program, and in 1942 he was granted a leave of absence to serve as consultant on the Controlled Materials Plan with WPB. Returning to Westinghouse in 1943, he was appointed to his present position as Secretary of the Policy Committee on Contract Terminations.

Lieutenant-Colonel Frank W. Renwick, Jr., received his preparatory school education and military training at the Northwestern Military and Naval Academy. Upon his graduation he was commissioned a Second Lieutenant in the Officers Reserve Corps. In 1932 he received his liberal arts degree and in 1934 his law degree, both from the University of Illinois. For the next six years, he practiced law in Chicago, first with the firm of Pringle and Fearing, and later with Knapp, Cushing, Hershberger, and Stevenson. Called to active duty with the Army in December, 1940, Colonel Renwick was assigned to the Chicago Ordnance District, where he now heads the legal staff.

Donald M. Russell received his training in engineering at the Worcester Polytechnic Institute and in business at the Harvard Graduate School. During World War I he served as Assistant Supervisory Cost Inspector for Mine Sweepers on cost-plus contracts. Following the war, he joined the Philadelphia staff of Lybrand, Ross Bros., & Montgomery, was made a Partner of the firm in 1929, and became Resident Partner of the Detroit office in 1934. Mr. Russell is a National Director of the National Association of Cost Accountants, President of the Michigan Association of Certified Public Accountants, and a member of the Committee on Contract Terminations of the American Institute of Accountants.

TERMINATION OF WAR CONTRACTS

CHAIRMAN PELOUBET: We will resume our session. This morning we started off with Colonel Downie who gave us, you might say, the spirit and the basis of the termination settlement position. Then we had George Bailey, who gave us the principles in a little more specific way. We are, as it were, gradually sneaking up to the actual job.

This afternoon we are going to get pretty close to the actual job. We are going to be told, not why it should be done or on what principles it should be done, but we are going to be told how it is being done.

Our speaker this afternoon is a man of broad and, I think, valuable experience with this work. He is a professional engineer. He graduated as an engineer and has had experience in production work. He has had actual experience as a machinist, so that he knows the shop. I have often thought that if I could get some of the juniors in my own firm to go out and work in a shop for a while, it would be beneficial. Every cost accountant should have had some shop experience, although I realize that this is often impossible. In any case, Mr. Fay has had that experience.

He has had experience in general costs. He has had experience in general accounting administration, and so far all of his experience must have been, while hard work, reasonably pleasant and reasonably rewarding. But in 1942 he changed that in a way and worked with the WPB, which, however, he survived. That was a difficult, grueling test, but he went through it and came out almost as good as he went in, and I think that anybody who can do that has really done his job in WPB.

Now he is back in his own company, the Westinghouse Electric & Manufacturing Company, where he is Secretary of the Policy Committee on War Contract Terminations. I take that to mean that he handles terminations for them. We will have much pleasure in listening to Mr. Fay tell us about actual things and his actual experiences.

CASE STUDY—WAR CONTRACT TERMINATION

Charles R. Fay

Secretary, Policy Committee on War Contract Terminations,
Westinghouse Electric & Manufacturing Company, Pittsburgh, Pa.

IN DEVELOPING a case study of termination problems, I thought you might be interested in a little background of the Westinghouse Company and its organization.

We manufacture a wide variety of products in manufacturing plants located in 25 cities. These primary manufacturing plants are located in 11 states and, in addition, during the war period we are performing numerous manufacturing operations in our repair shops which are strategically located throughout the United States. Toward the end of last year we made a check of the number of orders which were on the Company's books and found that there were approximately fifty thousand open orders, of which roughly three thousand were for over $10,000. Of the three thousand orders which were for over $10,000, only six hundred were prime contracts.

Because of our manufacturing setup, we do not often produce materials for a single order in a single plant. Each manufacturing unit produces a certain type of product and, where our customer's orders require a combination of these products, we find that the parts are accumulated from the various manufacturing locations and are finally assembled and shipped by the assembly division. Conversely, when a termination notice is received by the Company, stop-work orders have to be transmitted to each of the manufacturing units producing parts on the terminated order.

I give you this quick picture of our order and manufacturing situation so that you will understand that we have all the problems of both prime contractor and subcontractor, with special emphasis on the problems and complications of the subcontractor.

Organization for Handling Terminations

The Westinghouse organization for handling terminations has been established to give proper recognition to our particular type of manufacturing setup, and, for that reason, a similar plan might not work in any other company but Westinghouse. The complexity of the problem has been recognized by the Company, however, and a vice

president has been placed in charge of clearing all termination problems. The vice president is advised by a Policy Committee composed of representatives of the accounting, sales, and purchasing departments. In this way, we bring together for advice and counsel all of the departments which have a major interest in termination problems and thereby obtain a coordination of action with these departments which might otherwise be impossible.

We do not have a large headquarters staff, since we depend upon the various operating divisions of the Company to carry out the details of taking inventory and preparing claims under the general policies which are outlined by the headquarters group. This in effect divides our detail into 24 separate parts, one for each division. However, we still have the problem of presenting one summary Westinghouse claim. This is accomplished by routing all papers through a central point for summarization. All records on our termination volume and progress are also kept by the central point. A report is issued each month which gives our management a complete picture of the number and volume of terminations and the progress on each of the open items. When you consider that we are handling over 200 terminations a month, you will understand why a report of this character is necessary.

Written Procedures

Written procedures have been prepared, which set forth in very simple language the policies under which the division personnel operates. We have also outlined in these procedures the detail instructions for preparing forms where the operations to be performed must be standardized to comply with government regulations or to allow proper summarization of our claims when several different manufacturing points are involved. The most important point which I recommend to you is that you do prepare written procedures. We found that there were many questions still unanswered when we started to set down the data in writing. While all of the answers may not be clear from a governmental policy standpoint, we at least provided our organization with instructions that could be used until better answers were available.

With this brief outline of the Company and its approach to the termination problem, I would like to follow through operations as they affect one large contract on which we received a termination notice in March of this year. In giving you this outline, I am going

to take some liberty in describing how we handled the contract in order to bring out certain points which, I believe, are important. Also, it will not be possible for me to give you a reference to the specific contract, since the exact type of equipment must remain confidential. I want to assure you, however, that the basic facts as outlined have occurred and are not, in any sense, theoretical.

The Case Facts

A little historical background is as follows: On March 14, telegraphic notice was received by our district office to cancel 13 sets of equipment. The original contract called for 100 sets of equipment with spare parts in proportion. The telegraphic notice to terminate was relayed to the manufacturing department on the same day and the confirming copy of the telegram, together with a copy of the termination article in the contract, was forwarded to the manufacturing division two days later. Included in the termination telegram from the contracting officer was a request that we revise the termination clause in the original contract so that it would be identical with the Baruch clause, which would allow a negotiated settlement. The original contract did not have a provision for a negotiated settlement and, therefore, in line with our policy, we readily agreed to have the proposed amendment incorporated in the contract. On March 29 a meeting was held in our plant to establish the procedures which were to be followed in handling this particular termination and, in the course of the discussion, it developed that we were building identical equipment on several other individual contracts. It was also determined that the contracting officer had cancelled one of the contracts which was much further along in production than were some of the others on which we were working. Since the other contracts were not prime contracts, we suggested to the contracting officer that we be allowed to terminate one of the orders which was scheduled for later production and requested that he allow us to charge the original termination with the costs incurred in terminating the other order. We received approval of the contracting officer to do this on April 24.

Steps Taken

When the termination notice was received by the manufacturing division on March 14, paper work procedures within the Company were initiated to stop production and procurement. Telegraphic

notices of termination were sent to the majority of the suppliers and subcontractors within four days. Delay was experienced in some cases because of the relation of the termination to our production schedules on the several contracts mentioned previously. Work within the manufacturing division was stopped within two days in those cases where it was determined that the material would not be required for the continuing portion of the order. Notification to other manufacturing divisions within the Company which were acting as subcontractors on the order did not flow as rapidly as we had hoped, since this part of our system had not been fully developed at that time. However, no serious delays were encountered and all work was stopped within the Company within a period of ten days.

In stopping work, we had anticipated the approval of the procurement agency in accepting termination charges on the later production orders rather than on the order on which the termination was received. We therefore gained some time in handling the termination because of this assumption which was later ratified, as I have previously indicated. Since the contracting officer had suggested that we insert the standard Baruch clause in our contract, we obtained, in addition to a negotiated settlement, the provision that the Government would be responsible for destroyed, lost, stolen, or damaged property following the 60th day after delivery to the Government of an inventory covering the property. In view of this fact, we decided at the meeting to prepare an inventory list (uncosted) immediately, which list would be forwarded to the contracting officer at the earliest possible date. This list was prepared and was submitted to the contracting officer on April 17.

The list as originally presented was, of course, a partial list of materials since there were materials in the hands of suppliers and subcontractors on which we did not have inventories, and we did not want to wait untill all of this data was available. Supplemental lists are being forwarded to the contracting officer as they become available.

Agreement with Contracting Officer

On May 1, the contracting officer asked for a conference with representatives of our Company, and during the conference we developed a plan for handling disposition of materials and for settling subcontractors' and suppliers' claims. I am sure you will be interested in the agreement and, in order to make sure that I do not miss

any part of it, I would like to quote some of its provisions, deleting the contract numbers and the name of the contracting agency.

A summary of the letter is as follows: The following decisions were reached at a conference held in Washington in May, 1944, on the subject of disposition of inventories and settlement of vendors' claims arising out of the partial cancellation of the subject contract. These instructions confirm and implement instructions in the termination article (Baruch) which has been accepted by the Company.

1. The Company is not to assign to the procurement agency any right it has under cancelled orders or subcontracts until advised to the contrary in a particular case.
2. Any proposed settlement of a terminated or cancelled purchase order or subcontract involving payment of $10,000 or more before deducting disposal credits shall be submitted to the contracting officer for approval or ratification. No approval or ratification is required where the payment called for in settlement of the claims of a particular subcontractor or supplier is less than $10,000 before deducting property disposal credits, provided:
   a. The Company shall submit to the agency at the earliest opportunity a detailed explanation of the procedures and personnel employed in making settlements with subcontractors and suppliers, and agree to make such changes in the procedures and personnel as may be required by the procurement agency from time to time for the purpose of securing adequate review of subcontractors' proposals and effecting fair settlements thereof.
   b. The Company shall certify to each such settlement in the following form:

   "Westinghouse Electric & Manufacturing Company certifies that it has examined, or caused to be examined, to an extent which it considers adequate in the circumstances, the claim of its immediate suppliers, ——— (exclusive of charges arising from termination claims filed against such immediate supplier by its suppliers), that in its opinion settlement with said supplier in the amount of ——— is properly allocable to contract No. ——— and is fair and reasonable, was negotiated in good faith, and is not more favorable to said supplier than one which Westinghouse Elec-

tric & Manufacturing Company would make if reimbursement by the Government were not involved. As to more remote suppliers, Westinghouse Electric & Manufacturing Company certifies that it has no knowledge to doubt the reasonableness of their settlements as incorporated in termination claims filed against the said immediate supplier. Westinghouse Electric & Manufacturing Company shall not be deemed to have made any representations with respect to said supplier's claim or the settlement thereof, except as expressed in this certificate."

   c. The Company agrees to permit selective reviews of such settlements to be made from time to time by the representatives of the procurement agency in order to determine the way in which they are being conducted.

3. It is not necessary to determine at this time to what extent title to materials is in the United States by reason of progress payments, provided disposition of the materials is effected in accordance with the instructions given herein.
4. Certain property involved in the contract shall be disposed of as follows, subject to applicable governmental orders and regulations:
   a. Crude or simple raw materials, such as metal ingot which is freely traded in and for which there is a recognizable market price, may be sold to any buyer at such going market price, less usual commercial discounts. If the quantity of such an item involved is less than a minimum commercial quantity, it may be sold to any buyer at the best price obtainable. Offers for larger quantities at less than the going market price, less usual commercial discounts, should be referred to the procurement agency for approval.
   b. In the case of usable materials other than crude or simple raw materials as defined above, disposition shall be effected at the best price obtainable after due consideration has been given to any information as to market values which can be obtained with reasonable effort.
   c. Where the entire termination claim of a subcontractor in any tier is less than $10,000, before property disposal credits, you may approve the disposition of any quantity of any of the foregoing items at the best price obtainable in your judgment.

> This would include all cases in which you are authorized to settle a subcontractor's claim without approval or ratification in accordance with paragraph 2 hereof.

The Company is authorized to delegate to its vendors and subvendors the same authority with respect to disposition of property allocated to their subcontracts as is conferred upon it in paragraph 4 hereof.

Importance of Authority to Settle with Subcontractors

I believe this agreement is important because we have had indications from the Army, the Navy, and the Maritime Commission that this type of instruction has a fair chance of becoming a pattern for handling terminated contracts, at least for those companies which are qualified as having satisfactory plans and procedures for handling terminations. I believe that the general outline of instructions of this character is now incorporated in a revised edition of P.R. 15 for the Army and in one of the Property Disposition Directives issued by the Navy.

There are certain points with respect to this delegation of authority which I would like to emphasize, lest you assume that such authorization may be too readily obtained:

1. Authorizations of this type are applicable to specific contracts and are not company-wide.
2. This type of letter is given to prime contractors. If you are a subcontractor, you must rely on the prime contractor passing the information down to you.
3. If the prime contract is a cost contract of any type, this authority will not be given to the prime contractor and, therefore, subcontractors under cost prime contracts cannot take advantage of these regulations.

Even with these restrictions, however, I believe that this type of agreement is a step forward in speeding the settlement of terminated contracts. In addition, it will allow payment to the smaller subcontractors and suppliers and should serve as a means of speeding up their presentation of claims. With authority such as this as a possibility, it would be extremely desirable to make sure that your organization is set up so that the contracting officer or your customer will find it desirable to add your name to their list of qualified companies.

Check Form for Subcontractor Claims

We have set up our purchasing department to play an important role in handling terminations, particularly in respect to the authority given us in the letter which I have just quoted. We have developed a very simple form on which we ask our suppliers and subcontractors to submit their claims. We do not insist that claims be filed on this form, but we have found that it is simple enough that very few companies have objection to its use. In signing the first page of the form, the supplier or subcontractor releases the Company and the Government from further liability in connection with the contract and therefore eliminates the need for separate documents for this purpose.

When the form is received by the purchasing department, the claim is checked through the use of a question and answer form which sets forth some of the mental processes which anyone would go through in examining a claim. This review also includes a mathematical check of the extension and addition of the figures on the claim form, since we find that numerous errors of this type are made. Up to the present time, it has been our policy to make only an office review of suppliers' and subcontractors' claims.

Points Covered by Form

The purchasing agent is required to fill out one of these forms and attach it to every claim submitted by a subcontractor or a supplier. This becomes a part of our permanent record in connection with our final claim. Some of the items which are incorporated in the form are as follows:

1. *Verification of quantity*—In this case, for example, we would set down the quantity ordered, the quantity received, and the amount still due on the purchase order. Then, from the supplier's claim, we would note the completed items which he has on hand and any partially completed items which may be available in the vendor's plant. From this information we are able to determine with reasonable accuracy whether or not the quantities incorporated in the claim are properly allocable to the contract.
2. *Verification of price.*
3. *Profit on costs, excluding completed parts*—Profit on cost, excluding the price of completed articles, is redetermined from

the data which is submitted on the claim and the amount is inserted on the check form.

4. *Supplier's proposed material charge*—Material prices of items included in the claim are reviewed in the light of the purchasing agent's knowledge, and the quantity of materials charged to the order are reviewed for allocability.
5. *Administration and other costs*—The three items of administrative costs, post-termination expenses, and other costs incurred in the contract are reviewed from the standpoint of reasonableness and their application to the terminated contract.
6. *Westinghouse-owned materials, parts, and special tools*—The determination is made as to whether there are any Westinghouse-owned materials, parts, or special tools in the supplier's hands which require disposition. Also, if the supplier has proposed disposition of these items, the determination is made as to whether or not this disposition is satisfactory.
7. *Salvage allowance*—A review is made of the salvage allowances offered in the light of the current market situation on scrap metals, and at this time the possibility of sale of the material at other than scrap prices is also considered.
8. *Supplier's total proposal for settlement*—The total supplier's proposal is reviewed for mathematical accuracy and by checking all of the footings and extensions.
9. *Challenging and investigation*—Space is provided on the form for recording those items on which further review is deemed advisable. Questionable items are promptly referred to the supplier for his recheck and comment. Under normal circumstances, all questions can be cleared by correspondence. However, in the few cases where this is not possible, a conference is usually held with the supplier to try and reach a satisfactory negotiated settlement.
10. *Investigation of challenged charges*—A record is made of the final agreements which are reached in clearing the questioned items. The form is then approved by both the purchasing agent and the auditor of the manufacturing division involved.

Field Review of Subcontractors' Claims

We have found that the form is very useful and that its use allows us to perform a satisfactory auditing function. We do not feel that we can afford to audit the books of any company. However, we are

establishing a plan for viewing the inventory and discussing certain general features of the claim with the supplier subsequent to the receipt of the supplier's claim by Westinghouse, but prior to the office review which is performed by the purchasing agent and the auditor. The field review would cover generally the following points:

1. The supplier system for handling terminations.
2. A statement as to the method of taking inventories, i.e., by physical count or from book records.
3. Where common materials are involved, the reasonableness of the method of allocation.
4. A spot or other check of the inventory count.

I have taken considerable time to explain our method of handling supplier's claims, because I feel that the forward step that the government agencies have taken in proposing to delegate authority to contractors to settle claims under $10,000 with their suppliers is an important step in speeding termination settlements generally. Also, I believe that, if we are to expect further assistance of this character from government agencies, we must take this job seriously and do whatever is necessary to carry out our part of the program so that it will be a credit to industry and will provide proper safeguards for government expenditures.

Payments to Suppliers and Subcontractors

It is our normal practice to pay suppliers and subcontractors after we have had approval from the contracting officer on their claims or after we have received money from our customer, whichever first occurs. We realize that this is apt to be a hardship on some of our suppliers; however, we hope that the extension of authority to settle immediately with subcontractors and suppliers where claims are less than $10,000 will materially speed up the payments. We plan to pay on these claims as they are checked and passed by us and, if necessary, obtain advances from the contracting officer to cover our disbursements.

I like to think of the work necessary to the preparation of claims and the reaching of a final settlement as being divided into two separate and distinct parts:

First, the part for which the company is responsible, i.e., the taking of inventory, the required work on material disposition which the company must perform during the first sixty-day

period, and the preparation of the settlement proposal itself, and,

Second, the part for which the Government is primarily responsible, i.e., the auditing of the proposal, the final disposition of the inventory, and the payment of the claim.

It is quite clear to me that we cannot possibly ask the Government to settle our claims until we have presented our settlement proposal. I am sure that the one thing that our monthly reports on terminations have developed for us is the fact that, as yet, we have very seldom been able to present a claim within thirty days and the usual time has been nearer sixty to ninety days and, in some cases, even longer.

We have found, in clearing the claim on the termination with which we are concerned in this discussion, that the mere fact that we took an inventory promptly as a basis for the disposition of materials greatly facilitated the preparation of the settlement proposal. I therefore recommend to you that an immediate inventory be taken on all terminated contracts.

Detail Required to Protect Company

I believe that all of us have been a little negligent in the way we have submitted our settlement proposals. When we developed our instructions, we found that in order to protect the Company we actually needed several forms in addition to those which had been recommended by the various government agencies. Filling out the forms prior to the presentation of the settlement proposal is one of the jobs that just takes a lot of time and a lot of clerical effort. I believe we would do well to recognize the fact that the data which we are presenting is just as necessary for the Company as for the Government. For instance, a complete detail of the inventory is necessary so that shop production floors may be cleared of the material and so that inventory accounts may be properly credited. The listing of the tools, dies, jigs, and fixtures is necessary so that all of these items applicable to the claim may be properly stored, shipped, or scrapped. It has been our experience that tools, dies, jigs, fixtures, and patterns take up an immense amount of space and are very seldom applicable to production contracts other than those for which they were built.

Proper detail with regard to shipments which have been made on the contract prior to termination, together with records of progress billings, apparatus shipped but not billed, apparatus billed but

not shipped, and other factors must be properly recorded so that in making the final settlement on the claim we will not forget to adjust the gross amount to a proper net figure. I stress the importance of these items as being safeguards for the Company because I feel that too many of us have been apt to consider these things as requirements of the Government and have, therefore, approached them with a negative viewpoint. In other words, we say: "Just another bunch of forms to fill out. Why go to all that detail?"

In the set of forms on which we will present a claim on this contract there will be 19 separate summary sheets and schedules and, while there is a possibility that the number of sheets may be reduced by putting several items on the same piece of paper, I do not believe that any of the information which is being submitted is superfluous. The forms are the standard forms which have been proposed for use by both the Army and the Navy, with some slight adaptations to take care of our particular costing and accounting problems.

I am not advocating that we should make this job any more complicated than it is; however, when the material is available and should be required for our own protection, I see no reason why it should not be submitted to the Government so that their review can be accomplished more efficiently and more quickly. The latest forms which have been developed by the Army show that considerably less detail is required for claims of less than $10,000 than for the claims of larger proportions, and their forms also indicate that, on claims of less than $500, practically no detail is required. I believe that this may be reasonable because the smaller the claim, the fewer the complications. Therefore—and again thinking in terms of protection to the Company—there might be less reason to go into detail on the smaller claims.

Material Disposal

In disposing of inventories on this claim, we assigned the job to our purchasing department. We are making every effort to find ways and means of clearing surplus inventories from our manufacturing floors by moving them into warehouses, but the only satisfactory method of disposing of these materials is either to sell them or scrap them. We have also found that if material disposition has been completed it is much easier to obtain a final settlement of our termination claim. The purchasing department supervises the dis-

tribution of surplus materials between the manufacturing divisions of the Company and also develops markets for various types of materials which are most likely to become surplus. Sales to normal distributors, resale to suppliers, and sales through our supply company are some of the channels which we have found useful. We work closely with the contracting officer and other government material disposal agencies so that items which are definitely not saleable because of their stage of fabrication or which are not sold readily by our purchasing department are considered for scrap and, in fact, are scrapped at the earliest possible date.

Added Complications in This Case

This claim was complicated, as most claims are, by some unusual happenings. The first unusual happening in this instance was the reinstatement of a portion of the order on May 15. The reinstatement involved rescheduling of the apparatus and a complete check of the material requirements, since some of the materials had already been applied to other orders, some had been sold, and some of our vendors, in turn, had made disposition of some parts of their inventories. The second unusual happening was the cancellation of an additional 21 complete sets of equipment on June 12. Since we had been working actively on this order for some time with respect to the termination of the previous amounts, we were able to stop work on the latest termination very quickly, and we are already preparing inventory lists for submission to the contracting officer. As I have said before, I believe that we take too long to prepare most claims. However, changes in the termination notices are among the most serious problems which we face in prompt presentation of the settlement proposal.

As you can see from the dates mentioned in the particular order which I have discussed, we have not made any settlement on this contract. However, it is anticipated that a claim will be presented within the next 30 days, and we expect a settlement agreement to be reached promptly.

Summary

In conclusion, it might be well to summarize the more important lessons which may be derived from the handling of this particular order:

First and most important—Take an inventory immediately. This

should be done in spite of the fact that a high rate of production must be maintained on this or other orders.

Second—Prepare your inventory lists promptly and submit them to the contracting officer so that the sixty-day period for disposition of inventories starts running at the earliest possible date.

Third—Do everything you can to help speed the settlement of suppliers' and subcontractors' claims.

Fourth—Do the best job you can in reviewing suppliers' claims so that the government agencies will feel safe in delegating additional authority to contractors to handle additional phases of the termination problem.

Fifth—Press for disposition of materials at the earliest possible date. It has been our experience that the settlement of a claim is materially delayed unless the inventory has been completely disposed of either by use, by sale, by scrapping, or by delivery to the Government.

Sixth—Prepare your claim with the thought of protecting the company. I believe, if you do this, you will present enough detail so that the government agencies will be satisfied.

Chairman Peloubet: We are all very grateful to Mr. Fay for that interesting and at the same time very solid and factual presentation. I think we have accomplished our purpose in getting—I won't say down to the facts—but in getting to the facts.

One thing that struck me particularly about Mr. Fay's paper, among all of the things that he said, is something that we can take home with great benefit. That is the recommendation to take inventories whenever you need to and in spite of everything else. That may be a hard lesson to teach one's clients or administrative people. Inventories seem unnecessary and troublesome, but I think the recommendation is very, very sound. I do not say that all of the rest of the paper was not also very, very sound, but I was particularly interested to have that confirmed.

PANEL DISCUSSION

Chairman Peloubet: We now go into the panel discussion. We have had gratifying evidence of the interest in today's program in the large number of questions that have been sent in. The questions will be answered in the order in which they have been received,

as nearly as possible. It will be just like "Information Please," with one important difference—that is, the man who asks the question will not have a little card in his hand with the answer on it. I expect that on some of these questions there may be no answer at all, but if there isn't any it will at least be comforting to be told on good authority that none exists.

We will proceed with our question period. In addition to the three speakers, we have two additional panel members. One is Lieutenant-Colonel Frank W. Renwick, Jr., who is the Chief of the Legal Branch of the Chicago Ordnance District and has had considerable experience in the handling of terminations and similar problems. I think we are fortunate in having two men on the panel with both administrative and legal experience. The other panel member is Donald M. Russell of Detroit, Partner of Lybrand, Ross Bros. & Montgomery, known probably to almost everyone here. Mr. Russell has been active in the Institute and in the N.A.C.A., and he has been particularly active in work on termination and renegotiation problems. I think we are fortunate to have Mr. Russell with us today.

I will read the questions and give them to the panel members to whom they have been assigned.

The first question is for Colonel Downie. "The contractor's claim presumably will include all expenses incident to the termination which have occurred up to the date of filing the claim. May the claim thereafter be increased, and will the Government recognize the validity of such increase to cover additional expenses connected with the settlement negotiations, such as the cost of preparing supplemental data requested by the Government, traveling expenses, and salaries of employees in connection with conferences relating to the claim, legal expense, and similar items?"

Colonel Downie: Yes, the claim may be supplemented. Any reasonable and proper expenses incurred by the contractor after the notice of termination has been issued by the procurement office are reimbursable in connection with the final settlement. They are called post-termination expenses. The difficulty we find is not what post-termination expenses are but in trying to find some evidence or record in the contractor's books to substantiate the expenses that he says he incurred. Too often we find that the contractor says, "I incurred a lot of expense. I think if you will just give me about $10,000 I will be satisfied."

That is a very nice approach and if we were spending my money or Colonel Renwick's money maybe we could do that, but, after all, we are spending the taxpayers' money. As pointed out here today, we have to have some factual basis on which to pay out the government's money. Consequently, what we would like to have, and I think what you will have to furnish, is some sort of evidence showing us what these expenses covered, what they were for, and that they were reasonable considering the amount of work and time involved.

Chairman Peloubet: Here is one for Colonel Renwick. "What is the relation between repricing under Section 801 of the Revenue Act of 1943 and contract termination and renegotiation? Is the real significance of Section 801 in your opinion generally recognized by contractors?"

Colonel Renwick: That is more than a $64 question, I would say. I assume that you are referring to the unilateral pricing provision of the Act, and at the start I should say that, as you know, this provision is so new that we have had absolutely no practical experience under it. So anything I say has to be quite general in nature. Also, I should say that the relation between the pricing provision and termination is not one which is very clear. In fact, I don't see that there is much relation. Its relation to renegotiation is quite clear. As most of you know, it is contemplated that the renegotiation statute will be repealed in whole or in part, and rather obviously the War Department must have some medium for protecting itself and industry as far as pricing is concerned.

To take the place of the Renegotiation Act and the so-called second opportunity that the services get at the pricing picture, this provision is put in to authorize the Secretary of War and the Secretary of the Navy (where the prices seem out of line and the contractor will not cooperate with the government service involved) to fix a unit price which seems reasonable under the circumstances. The instructions to the technical services quite clearly state that our present procurement should be done on a basis which will allow us to exempt the particular contracts involved from renegotiation. Rather obviously we cannot do that 100 per cent, but we are instructed to make every effort to do so.

The instructions thus far on unilateral pricing are in a very pre-

liminary stage. Procedures have been received, but as to how they are going to operate, how effective they are going to be, and how they are going to affect you people, we just do not know. In the Chicago Ordnance District we have not used mandatory methods thus far. We hope that we do not have to use them at any time in the future.

The relation to termination, as I mentioned, is not a close one, except I would say that in the event a unilateral price is determined by the Secretary of War and in the event of any termination, that particular price would have to be considered in making a termination settlement. I know that is not a very satisfactory answer, but in view of the lack of practical experience we have had with this particular part of the Act, that is about all I can say.

CHAIRMAN PELOUBET: I think that is quite a satisfactory answer, and it gives us all something to think about.

The next question is for Mr. Bailey. "In figuring charge-backs on parts supplied by subcontractors, is it allowable to include contractor's original expenses, such as planning, engineering, drafting, etc.? If so, is there any accepted formula?"

MR. BAILEY: I would interpret that to be a question which involves prime contractors submitting material to subcontractors to be sent back later to the prime contractors in the finished article.

I think that puts the prime contractor in a position of being a subcontractor to the subcontractor. If the amount is to be included in the subcontract claim, which it may be better to do, then it is a question of filing the claim with the subcontractor in the same manner in which any other claim would be filed with the subcontractor on any part. The other alternative, of course, would be to include the expense in the prime contractor's claims and not feed it through the subcontractor. On that basis the question comes down to whether or not initial expenses are properly included in a claim. I think that is the essence of it. Of course they are. Starting costs, initial expense, tooling up, preparatory expenses—all expenses of that kind—are proper costs, provided they can be allocated to the contract and also provided they have not been otherwise recovered through renegotiation.

I do not think there is any formula by which those can be provided for in advance. I think they must be dealt with by proving

cost in the light of the individual circumstance of each case. How that may be done depends upon a study of each contractor's problem. I think it is a mistake to try to lay down a definite formula on which ititial expenses may be allowed.

CHAIRMAN PELOUBET: Here is a question which I should say is at least a $128 one, sent in by Clement L. Stanford of Indianapolis, Ind. This for Mr. Fay, and since it is lengthy and involves several parts I am going to ask Mr. Fay to read each part as he answers it.

MR. FAY: I think first that $128 is hardly enough to give for this question. The first question: "In determining deliveries to the date of cancellation of a contract, for purposes of determining the unfilled amount of the contract, shall gross billings or billings net of rejects be used?"

It would be my opinion that you should use the net billing of good products, because all deliveries should be accepted as well as delivered.

The second question: "What factors should be considered pertinent in determining a reasonable allowance for scrap where: (a) inventory basis is used for filing claim and scrapped parts have previously been sold as scrap and are not now available for inclusion in claim; and (b) total cost basis is used and scrappage increases total unit costs of remaining items in the claim?"

I think in both of those cases we would find that scrapping of items prior to termination has increased costs. By including them in factory overhead as defective losses you increase overhead rates, thereby including them in the contract. This is a comparable situation with the total cost basis which would incorporate scrap losses in the cost of the contract as it was accumulated. In no case would any defective items on hand at the time of termination be allowed in the claim except at cost, minus the amount necessary to bring them back into usable condition again.

The third question: "When tool and die charges are separately set forth on a purchase order for parts, can the tool and die costs be claimed separately in computing recovery on the total cost method where loss is anticipated?"

I would say that any costs properly allocable to the contract could be included in computing the claim, but that total recovery would be

limited by the total contract price of the uncompleted portion of the contract and, therefore, recovery might be reduced to that extent.

The fourth question: "Where more than one item is in a contract or purchase order and delivery requirements on one or more items have been fulfilled, is it permissible and/or necessary to include these completed and delivered items in determining the total cost, where a loss is anticipated and when the remaining items are cancelled? Where (a) completed items show a loss, and (b) completed items show a profit?"

I think that hinges entirely upon the definition of a completed item in the contract. Contracts are written in two ways. First, there is the contract where a lump-sum price is quoted on all items in the contract; and second, there is the contract where separate prices are quoted on individual items covered by the contract. It would be my answer that, if the first condition applies, the completed items would have to be included in the termination claim, and if the second condition applies, only the unshipped items would be used as the basis for determining the maximum allowable cost. The profit or loss on bona fide completed items under the contract has no bearing in the determination of total allowable cost on the terminated portion.

The fifth question: "What are the rights and obligations of a prime contractor to inquire and determine cost detail and profit included in billing by a subcontractor when (a) sub-sub has completed all work, delivery, and billing prior to cancellation notice, or (b) sub-sub has not yet completed all work prior to cancellation notice?"

It is our opinion that, unless we know definitely that something is wrong with the sub-sub's claim, we make no investigation into his costs or data in his submission of claim to his customer who is our subcontractor. We depend on our subcontractor to make all of those determinations in either case indicated here.

Chairman Peloubet: I do not think we need to have Mr. Fay try for another one, do you? Seriously though, I think that was an excellent question. It was long, but it brought out a situation and it brought out a very excellent answer.

We have another one somewhat like that. The facts giving rise to the question in this case are as follows: "The contractor, although he has received no letter of intent from the Government, has full knowledge of the fact that the contract which subsequently becomes terminated will be forthcoming. The contractor includes the

items required for the above contract in purchase orders placed to cover other contracts already on hand, and deliveries are received on the above purchase orders prior to the execution of the contract referred to above. The contract first referred to is terminated before any deliveries are made by the contractor against it. What is the proper method of presenting the canceled items in the termination claim in order that the facts can be brought to the attention of the contracting officer and approval of the claim obtained?"

This question is asked by R. W. Vogel, Controller of the Buckeye Traction Ditcher Co. of Findlay, Ohio, and will be answered by Colonel Downie.

COLONEL DOWNIE: As I understand this question, the contractor has been asked informally to proceed on certain work for some procurement agency of the Government. He has done so without any preliminary or definitive contract on which to operate. He, like so many contractors during the past three and one-half years, has been most cooperative, and he has gone ahead and done the job. Then he finds out that he is probably going to get canceled out, but he does not have a scrap of paper from the Government on which to base a claim for the costs and expenses incurred in doing the job.

This situation undoubtedly will arise in a good many cases, and the specific answer at the present time is that from a strictly legal viewpoint there isn't a thing the contractor can do. But there are two practical answers. In the first place, even without legislation, I believe the procurement agency, if it is trying to deal fairly, would go back and try to issue some sort of an instrument which the contractor could use to present a claim against the Government. Also, the Contract Settlement Act that has just been passed by Congress very clearly provides for a situation just like this.

You will recall that after the last war there were thousands of claims which were not evidenced by strictly legal instruments and there were many other contracts which were not properly executed on the part of the Government. I believe it was in 1921 that Congress passed the Dent Act in order that the government officials could settle claims where there was a lack of a proper legal instrument or contractual authority. In the Act that has just been passed by Congress, similar provisions are included. In substance, what it provides is that, if a contractor has gone ahead and done a job in good faith and in reliance on an order to be placed with him, and the order is

not actually placed up to the time that he receives notice to stop, then he may present his claim to the procurement agency which requested him to do the work, and the procurement agency is authorized to settle his claim in the same manner that they would if he had had a formal document.

CHAIRMAN PELOUBET: I would say that is a rather reassuring answer, and it is certainly interesting to hear Colonel Downie's opinion that it may not be an uncommon case.

COLONEL DOWNIE: I might further explain the first situation. At the present time, under Executive Order 9001, where there is an insufficient legal instrument or a lack of contractual authority on the part of the procurement agency, it is possible for us in the procurement offices to request approval from Washington to amend and correct these legal insufficiencies and to pay contractors fair compensation based on the hardship of the situation and the equity of the particular case. That is what is called Executive Order 9001, and it is used to prevent undue hardship in such cases.

COLONEL RENWICK: As a matter of interest, the first fifteen termination situations we had at our office involved just exactly the facts that have been raised here. We had fifteen commitments outstanding, not covered by any legal document due to the particular circumstances existing at the time, and we were able to obtain termination reimbursement for each of the contractors involved by the use of Executive Order 9001.

CHAIRMAN PELOUBET: That is a very interesting comment.

The next question will be for Colonel Renwick. "Where the prime contract contains the standard termination clause and also the standard 'Disputes' clause (giving the contracting officer or head of the department the power to decide all disputed questions of fact), will not the contracting agency have the power to make final and binding decision (in the absence of bad faith) on such questions as the following: (a) what costs are sanctioned by recognized accounting practices; (b) what costs are reasonably necessary for performance of the contract and properly allocable thereto; (c) depreciation and obsolescence; (d) what experimental and research expense is con-

sistent with prewar program or related to war purposes; and (e) appropriate allocation of overhead?"

COLONEL RENWICK: As to just which of these points involve facts which would be determined by the contracting officer and be involved on an appeal it is a little hard to say, but I think I can answer the question on the basis of the new legislation. The answer would be "no." In other words, the provisions of the new Act contemplate that your hearings before the appeal board will be *de novo,* as we say, just as though it is a new case coming up for the first time, and for your information I can read from the bill, as I have it here. It says:

> Notwithstanding any contrary provision in any war contract, the appeal board or court shall not be bound by the findings of the contracting agency, but shall treat such findings as prima facie correct and the burden shall be on the war contractor to establish the amount due on his claim or the part that exceeds the amount allowed by the findings of the contracting agency.

I think it should be said, that as a matter of normal procedure and practice, the findings of fact by the contracting agency will be of considerable weight, but that I think is regular and could be expected. However, these findings are not binding or conclusive upon the board.

CHAIRMAN PELOUBET: The next question will be for Mr. Russell. "When a contract involving only a small portion of your war work has been canceled, can the cost of removing the canceled inventory from your production departments to a suitable storage place be included as a post-termination expense? Would prior approval by the contracting officer (or prime contractor) be required?" This question is asked by Frank E. Feistritzer of Muncie, Ind.

MR. RUSSELL: I think it would be very appropriate to discuss that situation with the contracting officer. Theoretically the cost of removing canceled inventory from the floor to suitable storage place certainly could be related to the contract, and I would think that ordinarily you would issue a work order and accumulate the cost in a separate account so that you could prove it. The decision might depend in part, however, upon the usual accounting procedure. You could hardly expect to adopt that policy with respect to a terminated contract and not do the same thing with other work; you might have

some question with the department if you elected to make a special charge for a terminated contract and you had never done it before or did not do it with respect to any other work. I would think ordinarily that a work order should be issued and the charge accumulated on the work order and put into the claim as a special post-termination charge.

MR. BAILEY: There might be a question of whether the removal is one for the protection of government property or merely for the contractor's convenience. If it is merely for the contractor's convenience, there might be a real question as to its allowability.

CHAIRMAN PELOUBET: This question is for Mr. Bailey. "Have you any suggestions concerning the book entries to record termination transactions? What accounts would you consider necessary to record transactions, such as claims, etc.?"

MR. BAILEY: I am a little confused because I am not quite sure whether the question deals with post-termination costs or whether it deals with recording on the financial statements termination claims in process of settlement.

The book entries on post-termination costs would depend on the system of accounting that the company usually follows—how much detail it has and how easy it is for it to accumulate its costs in the different departments. Basically, it would seem advisable to provide for a division of termination costs into material, personnel, and the use of facilities, and to provide that costs for people working on claims, when they are working on terminations exclusively, be charged to a termination cost account, and where they are working on them part-time that there be some reliable evidence showing how much of the time was being spent on termination claims.

Colonel Downie has already spoken about the difficulty of allocating general and administrative expense to special costs and that problem exists. I think myself there is something to be said for advance agreement on what shall be allowed or what is a reasonable estimate for termination costs.

I have a memorandum here, partly on that subject. Where practical, costs in that category should be segregated and charged directly to individual terminations. "Where direct charge by

individual termination is not practical, in the absence of a more specific basis of allocating expenses among the contracts which have been terminated, a percentage of other costs included in the settlement may be added." I assume that would mean that a percentage related to the total costs would be determined in advance by agreement or negotiation and added to the costs.

The only problem is that the total amount that we allocate by arbitrary percentages in that way must not exceed the total cost of all the work that is being done on termination. When you are all through, the total allocated to terminated contracts can't exceed the amounts that can be shown to be accumulated in the termination expenses.

Mr. Russell suggests that I get into the other phase of that problem, which is how to handle this matter on financial statements—in other words, whether a terminated contract is a sale at the time it is terminated and whether at that time your accounts should accrue the expenses that are not capitalized, as well as profit. That is a highly debatable subject, and it is a little early to give any categorical answer to it. There is a good deal to be said for the fact that when a contract is terminated all work has been done. Any rights that the contractor had have already accrued, not only as to expense, but as to profit, and as such he has the right, perhaps the duty, to set up that claim as nearly as he can at the full amount thereof.

The difficulty is one of uncertainty and you run afoul of the preference for being conservative. Just where we will finally land in good accounting between those two alternatives is a little difficult to say. I am rather hopeful that the American Institute of Accountants will issue a pronouncement on that subject in the relatively near future.

CHAIRMAN PELOUBET: The next question is for Mr. Fay, and it is a little easier one this time. "May any part of general overhead items, such as administrative expenses, payroll, rent, etc., be included in termination claims? Where the contractor's practice has been to allocate such expenses on the basis of gross sales, what is the proper method for determining the amount allocable to such termination expenses as (a) settling with subcontractors, (b) preparation of claims, (c) negotiations in connection with claim on prime contract, etc.?" This question is asked by Marvin P. Bradshaw of Washington, D. C.

Mr. Fay: I believe this is one of those controversial subjects, particularly where you have renegotiation involved. However, rather than get into a discussion of the controversial features, I will tell you what we have done in claims that we have prepared up to the present time.

First, all items of general overhead, general administrative expense, and other items of that character, are added to our basic costs on the basis of a percentage which is the normal or average percentage which is applicable to our going business. That adds to the claim an amount which approximates the current expenses of that type and, therefore, approximates the recovery which would be necessary to cover that type of expense in the profit and loss statement.

In preparing a settlement proposal, we add a percentage to the subcontractor's claim to cover our costs of placing the original order, possible servicing, handling engineering for the subcontractor, etc., in those cases where we have had such expenses. That percentage is supported by data which we are accumulating to represent the amount expended for such purposes. Administrative expenses as such are not distributed to the actual expenses involved in post-termination work at the present time; therefore, we are allowing whatever administrative effort is incurred to be cleared by the addition of overhead percentages to the normal claim, although that may have to be changed when the termination problem becomes much more serious than it is now, that is, in volume.

In the negotiation of settlements on prime contracts, the same thing applies. Post-termination expenses of any character, if they can be allocated directly without much effort, are being incorporated as post-termination expense in the proposal. If they are not readily allocated, we let them ride under administrative overhead, and they are recovered in the normal course of business.

Chairman Peloubet: Thank you, Mr. Fay. Colonel Downie has been asked to comment on the same question.

Colonel Downie: I will repeat the question. "May any part of general overhead items, such as administrative expenses, payroll, rent, etc., be included in termination claims?" I would say there should be no question about that. You are entitled not only to direct costs, factory burden, etc., but also to a reasonable proportion of any indirect or overhead expenses. So long as you include in your claim

such items for overhead on the established basis on which you have been operating, I am sure you will find that there is little difficulty in obtaining reimbursement.

The more difficult part of the question is, where the contractor's practice has been to allocate such items as payroll, rent, etc., on the basis of gross sales, "what is the proper method for determining the amount allocable to such termination expenses as (a) settling with subcontractors, (b) preparation of claims, (c) negotiations in connection with claim on prime contract, etc.?"

It seems to me that if the contractor has been handling these types of expenses on the basis of gross sales and there are no more gross sales because of the cancellation of the great bulk of the contracts in the contractor's plant, it might be very difficult to figure out a reasonable and fair basis of allocating post-termination charges on the basis of gross sales.

In those cases where such types of expenses have been handled on the basis of gross sales, it would seem to me that the best thing to do would be to set up separate expense accounts covering the handling of subcontractors' claims, preparation of claims, etc., and make direct charges into those accounts or make a reasonable proration of the expenses of the purchasing department, the accounting department, etc., as direct expenses in connection with the settlement of claims.

Chairman Peloubet: Here is another one for Colonel Downie. "How can a contractor eliminate the cost of protection and storage of inventories of work in process when the only value is scrap? Should he consider the deterioration of material during the period of awaiting authority to scrap? Can purchased parts requiring 100 per cent incoming inspection be considered work in process?" This is asked by Orville A. Mix of the Crowe Name Plate & Manufacturing Co. of Chicago, Ill.

Colonel Downie: If I understand the first part of this question, the contractor has certain bits, pieces, and parts on hand which he considers have value only as scrap and which, if he stores improperly, might deteriorate in value, and Mr. Mix wants to know how he can get rid of any responsibility on his part until he can get authority to do something with these bits, pieces, and work in process.

As I tried to mention this morning, this matter of the disposal of

property is the most difficult job we have. If the particular procurement agency has storage space, the property, if it is not scrapped, may be turned over to the Government and placed in the government warehouse. On the other hand, property which has a value only as scrap should be scrapped, and credit to the extent of the scrap valuation should be allowed by the contractor in his claim. If the contractor has such property, he should seek out, I should say, his contracting officer or whoever he deals with in the particular procurement agency and obtain authority to scrap it after allowing a scrap valuation.

If, for some reason, the contractor cannot retain it as scrap and allow a scrap credit, then authority can be obtained to dispose of it upon obtaining bids from scrap dealers. I know of no way that the contractor can relieve himself of responsibility until he determines with the contracting agency what action he can take or obtains ratification of the action already taken.

Of course, in all of these things you have to apply good judgment and common sense. Normally, prior approval of the contracting officer would be required, but I feel that most contracting officers try to be reasonable. If you are faced with a situation where you have to do something and have to take action, then I would say the thing to do is whatever would be the reasonable thing in the circumstances as it appears to you—go ahead and do it, and then establish that you did exercise common sense and good judgment when you submit your claim to the contracting officer and have the action that you took ratified in connection with your negotiations.

The second part of the question is, "Can purchased parts requiring 100 per cent incoming inspection be considered work in process?" I see no reason why they cannot be considered work in process. If they are finished parts that can be used in the final assembly, the procurement agency may take them off the contractor's hands as spare parts. On the other hand, if they have no value or if the Government does not want the final assembly, then for most practical purposes they have a value only as scrap, and they probably should be scrapped along with other bits, pieces, parts, and other unfinished work in process that is scrapped.

Chairman Peloubet: Here is a question for Colonel Renwick. "In view of the rather elastic terms used in the War Deparatment's Termination Accounting Manual, Sections 2401-2407 (WLS, Sec-

tions 8201-7), to set forth the responsibility of the prime contractor in connection with claims of subcontractors: (a) What is the standard for determining whether the prime contractor should go any further than an office audit of such claims? (b) What is the extent of the prime contractor's responsibility, if any, to ascertain that the subcontractor honored promptly the notice to stop manufacture, and that the subcontractor took his physical inventory in the prescribed manner? (c) What is the responsibility, if any, of the prime contractor to check the accounting system of the subcontractor? and (d) Assuming that the Contract Settlement Act of 1944 is enacted in substantially its present form, will the contractor's responsibility for the accuracy of subcontractor's claims be changed, and if so, in what respects?"

Colonel Renwick: First, what is the standard for determining whether the prime contractor should go any further than an office audit of such claims? I think the answer to that question is not a legal answer. As far as I know most of the contracting agencies have tried to follow the policy of asking the contractor to determine what he, if this were his own money, normally would do in his regular corporate practice as far as examining a claim of a subcontractor on termination is concerned? With it go several of these points which Colonel Downie mentioned this morning, namely, the size of the claim, the type of the claim, the amount involved, the complexity, and perhaps—not above all else, but certainly one of the important elements—what is the reputation of the particular subcontractor with whom you are dealing?

As far as our procedure in the Chicago Ordnance District is concerned—and I think it is rather typical—we have looked to the prime contractor to determine in his own mind what kind of a check he wants to make of his contractors' and suppliers' claims, and unless, as I say, it is one of unusual size and complexity, or involves a company about which we have some question based on prior dealings, we will ordinarily take the representation and certification of the prime contractor.

"What is the extent of the prime contractor's responsibility, if any, to ascertain that the subcontractor honored promptly the notice to stop manufacture, and that the subcontractor took his physical inventory in the prescribed manner?"

The first part of that question is very interesting because we hap-

pen to have had just recently an experience wherein the prime contractor notified the subcontractor, but the subcontractor did not stop work promptly. We feel that it is the responsibility of the prime contractor to check up on that point. At the time we had this one we had another one in which the prime contractor himself delayed thirty days before he gave notice to his subcontractors. That puts a nice burden on the contracting officer to determine whether or not costs incurred were reimbursable under the contract. It so happened in the particular case of the prime I mentioned that the prime contractor was able to satisfy us that, under the circumstances, the delay was not unreasonable. However, I would not cite that as a typical case. It was a very unusual one. It happened to involve a cost-plus-fixed-fee contract.

I would say that you should check up to see that your subcontractor stops work immediately and does not include any expense or cost which could be considered unreasonable in view of the instructions to stop work immediately.

"What is the responsibility, if any, of the prime contractor to check the accounting system of the subcontractor?"

There again, as far as I know, we have no prescribed rule. However, as a matter of sound business practice, I should think that if you were paying somebody your own money, you would want to know something about the procedure which the particular subcontractor follows. There again, I think you will be governed largely by your particular sub or those in a similar classification.

"Assuming that the Contract Settlement Act of 1944 is enacted in substantially its present form, will the contractor's responsibility for the accuracy of subcontractor's claims be changed, and if so, in what respects?"

The new Act is quite liberal in its terms and follows substantially what Colonel Downie mentioned this morning and which I elaborated on a little. However, I would say that the change from our present procedure is not a great one. Perhaps more flexibility will result. Again the rules and regulations of the Director will have something to do with that. I would say that, by and large, you will not have a tightening of the requirement. You will have a relaxation.

Chairman Peloubet: That is a very interesting answer. It brings us to something that we should all keep in mind, that is, that

the bill governing termination, which is now on the President's desk—and there is no reason to anticipate that it will not be signed—is a fine piece of constructive legislation. I think there can be no question about that. There are many things which could have been done in that bill which would have been damaging, and they haven't been done. There have been things which could have been troublesome in that bill, and they haven't been put in.

I think the bill is an attempt to be fair to industry, but is not meant to hand industry anything, nor to relieve industry of any legitimate burdens or obligations. At the same time it avoids putting impossible requirements and unbearable burdens on industry. It provides for an administration which is elastic but not loose. I think it is a real piece of statesmanship. I have been fortunate enough to have been able to watch its progress to a certain extent. I know the effort that has been put into it. I know that the advice that the framers of the bill received was not invariably followed, but it was always considered fairly.

I know that it isn't the policy of this Association to endorse anything as an Association, but I really think that as many individuals as read that bill over and then agree with me that it is a piece of highly constructive statesmanship should write letters to Senator George of Georgia, to Senator Murray of Montana, and to Representative Walter of Pennsylvania, who have been most influential and active in passing that legislation. It is easy to write to your Congressman and complain. That is natural and it is often useful, but I think it is equally useful occasionally to tell him when he does a good job.

The next question is for Mr. Russell. "Under cost-plus-fixed-fee contracts, where the terminated contract is small compared to other cost-plus-fixed-fee contracts in production and where many items in the terminated contract are similar to items in the other cost-plus-fixed-fee contracts, is a physical inventory necessary or will a stock card listing be sufficient, actual shortages being absorbed by the larger working cost-plus-fixed-fee contract?" This question is asked by J. V. Miccio of the Republic Aviation Corp., Farmingdale, N. Y.

Mr. Russell: In the first place this question pertains only to cost-plus-fixed-fee contracts, and it is based on the assumption that the terminated cost-plus contract is small in relation to other cost-plus-fixed-fee contracts. It would seem to me that under those cir-

cumstances it might be common sense and practical for the contractor to proceed on his own responsibility and apply these materials to the other cost-plus contracts and eliminate his termination claim. Of course, if there is quite a bit of money involved in the terminated cost-plus-fixed-fee contract, the problem is more serious. I think it should be recognized that the services have adopted a very good view in recognizing modern auditing procedures of tests and sampling. The answer to the question, if there is quite a bit of money involved, might depend on convincing the contracting officers that the book inventories are accurate, that is, accurate within usual commercial limits.

I know that in certain places they have accepted book records of inventories based on special studies to prove the accuracy of the book records.

CHAIRMAN PELOUBET: Here is another one for Mr. Bailey. "To what extent can office and administrative expenses, incurred during negotiation of terminated contract costs, be included in and made a part of termination costs, where a separate organization for government business has been in existence since the first government contract was received several years ago? This organization will be disbanded after final settlement of terminated contracts since there is no future government business to be processed."

MR. BAILEY: That is more or less the same question I tried to answer a little while ago, with respect to which I read a short paragraph from a memorandum that I had in front of me. If, in the final windup, expenses have been charged to termination expense accounts and have been allocated to terminated contracts as incurred, they cannot be included in the final terminated contract to an extent greater than the total amount accumulated in those accounts.

Again the problem is the same one that we always have before us, that of being able to show effectively that the expenses claimed as administrative and general expenses applicable to termination procedures were a fair allocation of those expenses. I think the basis of the test of being "reasonable," however, would apply to the final windup when the contracts are all terminated, and there might well be trouble with an unallocated balance of termination expenses that was all out of reason in relation to the particular contract, that is, the last one terminated.

Chairman Peloubet: A question has just come up addressed to Colonel Renwick, which I think is probably a very useful one. It was sent up by Howard A. Giddings of Leach, Calkins & Scott of Richmond, Va. "Will Colonel Renwick please outline the manuals, etc., a contractor should obtain from the Government in order to prepare himself to handle termination claims properly?"

Colonel Renwick: The basic one, of course, is P. R. 15, Procurement Regulation 15, which is the regulation that originally set up the procedures. The TAM, Technical Accounting Manual, which went with it, is of particular interest to accountants. I also would mention P. R. 7, which covers the disposal of property. In the Ordnance Department, we also have the Ordnance Procurement Instructions, called OPI, which follow the policies and principles set up in P. R. 15. The property question is so much with us that I recommend that each and everyone of you have some one or several people in your organization specialize in that particular phase of operation. At the present moment at our office we have in connection with the production service operation about six lawyers who do nothing but work on procedures and problems arising in connection with the disposition of property.

Since the creation of the Surplus War Property Administration, I think you should have the declaration of policy by Mr. Clayton, which came out recently, as well as any regulations which might be issued under that declaration of policy.

By all means I should have mentioned the Baruch-Hancock report as fundamental in this entire procedure. I think it is one of the best jobs any of us has ever seen, and it pretty well points the way and high lights most of the rules and regulations which you see coming out at the present moment.

I should like to say in that connection that our experience has been that most of these rules and regulations, many of which, of course, are very fundamental, follow the procedures and experiences which the Government and those of you representing corporations and the various contractors have had. In other words, the regulations pretty well conform to the procedure we have been following and which we feel will work.

Chairman Peloubet: Here is one for Colonel Downie. "Under a cost-plus-fixed-fee contract, to what extent may reconversion costs

be allowed where termination occurs in the early stages of a program and before any appreciable amount of fee has been earned?" This is asked by J. H. Miner of the Aircraft Division of The Mengel Co., Louisville, Ky.

Colonel Downie: In the first place, practically all of the discussion today has concerned fixed-price supply contracts. The uniform termination article applies only to fixed-price supply contracts and most of the regulations that we have talked about pertain only to that type of contract. There are relatively few cost-plus-fixed-fee contracts throughout the country—they are the minority in numbers, of course, in comparison with the total number of the other types of contracts. However, in volume they do add up to sizable amounts.

In determining the rights and obligations of contractors under cost-plus-fixed-fee contracts, it is necessary to go to the particular contract and see what it provides. To a large extent, they follow a general pattern, but many of them contain peculiar provisions because of the circumstances applicable to the type of product being made. The early cost-plus-fixed-fee contracts provided in effect that on termination the Government would do the whole job of disposing of the property, settling subcontractors' claims, etc. Later, contracts of that type provided generally that the prime contractor would do that in behalf of and for the Government and subject to the approval of the particular contracting officer.

So far as reconversion expenses are concerned, if the cost-plus contract is silent on reimbursement for reconversion expenses, I would take it that the same principles would apply as do apply to fixed-price supply contracts, and that is they are not reimbursable in connection with the termination. On the other hand, if the contract provides for reimbursement of certain reconversion expenses, then you are entitled to recover exactly in accordance with the terms of the contract.

Chairman Peloubet: Here is one for Mr. Fay again. "Both the standard termination clause and the pending Contract Settlement Act provide, in connection with interim financing, for advance or partial payments pending settlement, but give broad discretion to the government representatives in this connection. Is there any safeguard against contracting agencies using this discretion to force settlements on their own terms?"

MR. FAY: I believe that the general rule in making partial payments is going to be to the benefit of the contractor all the way through. Government agencies are under specific directions to make advance payments even beyond the needs of a good many contractors today.

I do not believe that there will be any use made of it to force settlements on their own terms. It might be used to speed up settlements or to speed up the filing of claims, but I do not believe there is going to be any use made of it on the part of the contracting officer to force settlements on their own terms.

MR. BAILEY: The advance money would ordinarily be paid long before they get to the settlement of the claims, so in very rare instances would the two be tied together in that way.

CHAIRMAN PELOUBET: Here is one for Mr. Russell from Charles James of Stevenson, Jordan & Harrison of New York. "Where a contractor clears his costs of purchasing, expediting, receiving, storing, and issuing materials by including them in burden which is applied to the cost of productive labor, how can the contractor make a claim for such material procuring and handling costs on raw materials on which no productive labor has been expended up to the date of termination?"

MR. RUSSELL: I would suppose that the regular accounting procedures would be quite a handicap to him under those circumstances, because he has established his usual method of burying his handling costs in his overhead expenses. Perhaps it would be just a question of proving the fact. Perhaps he could make a special analysis and convince the contracting officer that on the basis of a statistical study he is entitled to a certain recovery; I believe if it is reasonable it will be recognized.

CHAIRMAN PELOUBET: Here is another one for Colonel Downie, asked by N. H. Gross of the Boeing Airplane Co. of Wichita, Kan. "Do cancellation claims, including claims on account of engineering deviations, under cost-plus-fixed-fee contracts, come under the same regulations as termination settlements?"

COLONEL DOWNIE: I might explain it this way: In the War Department, Procurement Regulation 15, our guide in the settlement

of terminated contracts, covers fixed-price supply contracts. It also contains certain provisions applying to cost-plus-fixed-fee contracts. The rules are not exactly the same because of the differences in the types of contract.

If a contractor is operating under a cost-plus-fixed-fee contract, it would be well for him, I should say, to review rather carefully the War Department regulations and then particularly his own contract to see what his obligations and rights are.

Mr. Bailey: Colonel Downie, may I say that the principles of cost allowances is much tighter on cost-plus-fixed-fee contracts than on a fixed-price contract, and that the costs to be allowed on termination of cost-plus-fixed-fee contract will be those that are allowed on active cost-plus-fixed-fee contracts even before termination. Is that not right?

Colonel Downie: That is generally correct.

Chairman Peloubet: Here is one for Colonel Renwick, asked by Marvin P. Bradshaw of Washington, D. C. "Where the prime contract contains the Government's standard form of termination clause but the subcontracts have no provision on the subject, so that the subcontractor has the common law measure of damages for breach, to what extent will contracting officers be permitted to reimburse the prime contractor for this liability to the subcontractor? In other words, since the standard form contains a formula limiting the prime contractor's profits to an amount which may be substantially less than his anticipated profits, will contracting officers be expected to withhold approval of settlements with subcontractors which will result in the subcontractors getting a larger profit than this yardstick would afford?"

Colonel Renwick: I might say that as far as the legal end of the operation is concerned, that question is probably asked more than any other single question I know. Most of you are familiar with the reference there to the right of the subcontractor to so-called common law damages, including profit on work not done. The policy of the Ordnance Department and, as far as I know, of the War Department, has been uniformly not to allow the subcontractor to obtain any profit on work not done. In other words, the same prin-

ciple is applied to the sub or supplier as is applied to the prime pursuant to the provisions of the particular termination clause involved. That principle has been adopted as a matter of policy, and I can think of at least two reasons why it should be adopted. One would be that if we had to pay to all of the subcontractors profit on work not done, there might not be that much money.

In the second place, I think there is generally a feeling (and you have heard it stated) that there should not be earned more than a reasonable profit out of the war, and certainly for work that has not been done at all, no one should be paid. I am not arguing the relative merits of the proposition. However, that is the policy that has been expressed and that has been included in the new suggested form of termination article for subcontractors. You will notice that the language in the new bill refers to profit to the subcontractors on work performed.

I might say that of the some 900 to 1,000 prime contracts that we have terminated and settled in the Chicago Ordnance District in the last two years, which involved many thousands of subcontracts, we have had only about three cases in which this particular point has been contested by the subcontractor, and those three are going to court.

COLONEL DOWNIE: I might add to what Colonel Renwick has said that if a reasonable settlement cannot be worked out between the prime and the sub, it is possible for the procurement agency to take over the claim of the subcontractor by assignment and release the prime contractor from any further liability, and then the Government and the subcontractor can have a battle until doomsday trying to work the thing out. But I can confirm what the Colonel has said; these cases happen so infrequently that they really do not cause us much trouble, because, by and large, industry has been perfectly fair and all they have asked for, and all they have tried to get, is fair compensation for what they have done. They have not tried to hog this thing and get the last pound of flesh.

COLONEL RENWICK: I might add one point there. Assuming that the matter does go to court and the subcontractor obtains his judgment, then the policy of the Government would be to reimburse the prime for whatever the amount of that judgment would be. It might include common law damages.

Personally, I should like to see the question decided because there has been a lot of question about it, and regardless of prior court decisions holding that the subcontractor could recover profit on the entire contract, I think there might be some question whether such profit would be allowed today.

CHAIRMAN PELOUBET: That is a very interesting answer, and I think that is a question that naturally has been in the minds of many of us. Of course, nobody really thinks down in his heart that the subcontractor, just because there is a particular clause in his contract, should be treated better than the prime contractor, but the question of legal rights does arise, and I agree with Colonel Renwick in hoping it does get decided.

Here is a question for Mr. Russell. "If the termination condition of a purchase order provides for a termination settlement without profit, will the contractor be reimbursed for payment of reasonable profit to subcontractors in accordance with recognized termination procedure?" The question is asked by Howard Davis of the Interstate Aircraft & Eng. Corp., DeKalb, Ill.

MR. RUSSELL: I understand this to mean a purchase order issued from a prime to a sub, where the prime has put into the purchase order a clause stating that no profit will be given to the sub upon termination. That procedure is quite contrary to the general plan or policy of the Government, but I would suppose that if such a clause were in the purchase order and it had been accepted by the subcontractor, that might fix it, because I suppose the rule would come in that a contracting officer could not ignore or give away a right which had accrued to the Government through a specific contractual relation of that sort. This appears to be more of a legal question than an accounting question.

COLONEL RENWICK: I might try part of that question, although it is really a tough one. I think that we would find ourselves in a difficult position as representatives of the Government if we knew about the provisions of the purchase order or subcontract of that nature and still went ahead and allowed some profit.

The question has come up once or twice in a general way, not as a specific case. I am not prepared to say whether or not the new legislation might help. However, bearing in mind that the new

legislation pretty clearly indicates, as do the policies and procedures of the War Department, that the subcontractor shall be taken care of and shall be paid fair compensation, you may be able to find some way out with the government agency involved in a situation such as you mentioned.

COLONEL DOWNIE: I should like to add just one comment. Somebody has said: "What is sauce for the goose is sauce for the gander." We expect subcontractors to cut down their profits to reasonable amounts, although under their legal rights they may be entitled to much more. Likewise, what we would like to do in the procurement agencies is to pay a profit in those cases where subcontractors unwittingly agree to the termination of their purchase order without profit, when as a matter of fact, if they do, it will result in a hardship to them because they need the money. I say that is what we would like to do in order to be fair.

CHAIRMAN PELOUBET: I am trying consistently in this question period to avoid overworking the legal side but I haven't had much success yet. About half the questions are legal questions. Here are two questions that are very similar. I am going to combine them for Mr. Bailey. E. I. Gerhard of the Leland Electric Co. of Dayton, Ohio, asks: "Since the contractor must approve all claims under $10,000, should he ask for certified copies of the subcontractor's invoices covering material or parts purchased from the subcontractor's supplier?" George L. Giess of Philco, Philadelphia, Pa., asks: "What are the advantages and/or the incentives for a prime contractor to settle claims of subcontractors under $10,000? What are the incentives to a prime contractor to attempt to settle claims over $10,000?"

MR. BAILEY: "Since a contractor must approve all claims under $10,000, should he ask for certified copies of subcontractor's invoices covering material or parts purchased from the subcontractor's supplier?"

The prime contractor finds himself in a position of examining a claim. He can do that by sitting in his own office if there is adequate data. He can send a man out to the subcontractor's office, or he can ask that information be sent to him. If the claim is made up almost entirely of raw material that has not yet been processed, certified copies of the purchase orders or the materialman's invoices

would be entirely in order and might be all that the prime contractor would need for his information in passing the claim.

"What are the advantages and/or the incentives for the prime contractor to settle claims with subcontractors under $10,000?"

The prime contractor has the prime responsibility for settling all subcontractor claims whether they are under or over $10,000. The point in the case of contracts of $10,000 and under is that he makes a showing to the procurement agency that he is competent, careful, and honest enough to settle claims with subcontractors without having prior government approval. The incentive and the advantage, of course, is that he does it in his own way without having everything he does checked over by the government men. He is allowed to use his own judgment and probably save about two-thirds of the time required if everything had to be checked by the Government.

"What are the incentives to a prime contractor to attempt to settle claims over $10,000?"

Under the law at the moment that is his primary responsibility. If he can settle them and settle them with the supporting data that he can submit to the contracting officer and have approved, he has just saved himself that much trouble, but I suppose that the meaning of the question is why should he not turn the whole problem over to the Government instead of bothering with it himself. Well, that probably would be easier, but the Government so far has shown an unwillingness to let the prime contractors turn over their examination problems to it in entirety.

Chairman Peloubet: Here is another one for Colonel Downie. "Are formula settlements exempt from the jurisdiction of the Comptroller General in absence of fraud? Is a 'total cost' settlement permitted under the formula provisions of the Uniform Termination Article?" This is asked by William Blackie of the Caterpillar Tractor Co. of Peoria, Ill.

Colonel Downie: Frankly speaking, we in the procurement offices have not had much experience with formula settlements. It is my understanding—and I am going to ask Colonel Renwick to comment if he has any different understanding—that if we do get down to a formula settlement because we cannot reach a negotiated settlement, then it is subject, at the present time, to review by the General Accounting Office, because it is based strictly on proven facts

and figures to support the claim, and negotiation of disputed items is not permissible. That being true, the answer to the question will be, "yes, formula settlements are within the control and jurisdiction of the Comptroller General."

As I read the new Contract Settlement Act, it apparently does not provide for a formula settlement unless the Director should prescribe formula settlements in addition to negotiated settlements. It contains rather complete provisions for negotiated settlements but does not lay down any formula in the event that negotiated settlements cannot be reached. If, however, the Director under this Act can prescribe a formula settlement, then I take it that Section 16 of the Act, which rules out the Comptroller General on pre-audit, might likewise rule him out on formula settlements.

Do you have any contrary opinion, Colonel Renwick? I have Colonel Renwick committed to the same general statement.

The next question is: "Is a 'total cost' settlement permitted under the formula provisions of the Uniform Termination Article?" I believe it is. It provides for actual costs and expenses incurred under the contract and sets up limitations on the amount of profit allowable on purchased parts, materials, and work in process. So, it would seem to me that the total cost settlement is permissible under the formula method.

Chairman Peloubet: The next one is for Mr. Fay. "With inventory valued on a last-in, first-out basis, such original inventory is valued on the books at considerably below the current price of purchases for a specific contract. What price should be used for valuation of the termination claim?" This question is from Jay T. Sarles of the Rome Cable Corp., Rome, N. Y.

Mr. Fay: I think the only answer to that is that the value at which you carry the inventory on your books should be used in valuing the claim, assuming that any adjustments necessary to bring that value on the books to an actual cost will be applied.

Mr. Bailey: I think there is a distinction between the various methods of keeping inventory, whether it is on the last-in, first-out, average, or first-in, first-out basis. I think it is within the philosophy of the settlement that the methods that have been followed on the books, whichever one of those it is that has been used for the accounting all the way through, is likely to be controlling as a basis.

Then to that will be added all the other costs. If a contractor has elected to follow one basis, whichever it is, for his general accounting, the chances are that would be the starting point for the valuation of his inventory. The total has to be increased by the amount of other costs that are not ordinarily carried in the factory inventory values.

CHAIRMAN PELOUBET: I might add one thing. That is a subject that is fairly close to my own heart. If you happen to be on the last-in, first-out basis and if you happen to be approaching your base inventory, I would say to look around very carefully and see if you have any commitments at a higher price. It is unlikely you won't have. Or look around and see if you have any commitments to replace. The correct application of last-in, first-out would not permit a low-priced basic inventory to be used currently on a contract, and I would say that in most cases there would be some circumstances, such as commitments or provisions to replace which would work against the use of a low-priced basic inventory arrived at on a last-in, first-out basis.

Here is a question for Colonel Downie by A. J. Topp of the Victor Adding Machine Co., Chicago, Ill. "Does the Government propose to furnish standard forms for the filing of termination claims by both prime contractors and subcontractors? Does the prime apply the formula type settlement with subcontractors?"

COLONEL DOWNIE: In so far as standard forms are concerned, there are at the present time nine different types of forms to be used in submitting claims, both by prime contractors and subcontractors, and in submitting lists of termination inventories to support the claims. These forms were prescribed, if I recall correctly, by the Joint Contract Termination Board. They have been issued by the War Department to all of the procurement agencies. As I understand it, the Navy has likewise issued standard forms which are substantially the same as the War Department forms.

These forms are subject to revision, based upon experience in their use. It would be well I think, particularly for members of this Association, to carefully review the forms and study them to see whether or not they are feasible and practicable for use in submitting your claims. If they are not, then I think you ought to make your position known, together with your recommendations, so that appropriate action can be taken to modify them. The probabilities

are that the forms will be changed sometime before fall, as experience demonstrates that certain things should be modified.

The next part of the question is, "Does the prime apply the formula type of settlement with subs?" The new uniform termination article for use in subcontracts does incorporate the formula type settlement in the event the prime and the sub are unable to reach a negotiated settlement. The new uniform clause is not in any subcontracts or purchase orders, I imagine, at the present time, so that in the absence of any specific formula that may be written into the subcontractor's purchase order, the rights between the prime and the sub are dependent upon common law principles. I think that the common law principle, generally stated, would be that a negotiated settlement would be permissible.

Chairman Peloubet: Here is a question for Mr. Fay from Otto T. Hinton of Sparks-Withington Co. of Jackson, Mich. "What policy do you follow in handling materials shipped by vendors after termination notice has been received by them? Are they returned?"

Mr. Fay: Our policy is that, as soon as the material appears in our receiving department, we notify the vendor that the material is there and ask him whether he wants it returned or whether he wants it left with us with the understanding that he will still incorporate it in his claim. That, in any case, leaves the material in the vendors' claim and not in ours.

Chairman Peloubet: This one is for Mr. Bailey. "Considering the uncertainties involved, would it be considered sound accounting procedure to write off pre-production expenses and inventories currently, thereby eliminating the necessity for filing termination claims? Would such costs be allowable for purposes of renegotiation?" This is asked by F. T. Sherlock of the National Cash Register Co. of Dayton, Ohio.

Mr. Bailey: This has to do not only with charging off pre-production expenses but the inventories, thereby eliminating the necessity for filing any termination claims.

I think it is not permissible to charge off inventories currently whether or not it eliminates a claim. As to pre-production expenses, however, one is in a different category. Under accounting practice

over a good many years it has been permissible to charge off initial expenses or pre-production expenses as they were incurred. It has been permissible to capitalize them if prudent business judgment indicated that they would be recovered, but by a great majority the practice has been to charge off pre-production expenses. Such expenses are being currently allowed for renegotiation. There isn't any reason why they should not be allowed in termination in my opinion as long as they are in accordance with good accounting. Again that does not apply to inventories. They ought to be included to the extent of the tangible values.

CHAIRMAN PELOUBET: This question is for Colonel Renwick. "If a contractor's cancellation claim consists entirely of claims from the contractor's vendors, is the contractor entitled to any profit on such claims?" This is asked by Frank E. Feistritzer of Muncie, Ind.

COLONEL RENWICK: That is a tough one. The policy generally, as far as our office is concerned, is not to allow profit on profits, so to speak. In certain types of cases where the work involved in connection with the settlement is unusually complex in nature and the prime has had to do an unusual amount of work, we have taken that factor into account in arriving at the amount of profit to be paid to the prime. Obviously where a large amount of property is involved and the contractor does an unusually fine job of disposing of it, we have in these cases treated profit as a handling charge in effect.

COLONEL DOWNIE: This question of prime contractors being entitled to a profit on parts purchased from a subcontractor is difficult for us in the procurement agencies, because we do not always have the rules to guide us as to what we should do. We are told to exercise sound business judgment, and you can measure that in a good many different ways. What we do try to recognize is, if a prime contractor has done a large volume of subcontracting, or even a sizable volume of a difficult nature, he does incur certain risks and he does incur considerable expense in connection with processing and handling the subcontracting work, and he should be entitled to some compensation for his additional costs and his efforts for the work that he has gone to in subcontracting and in taking the risks on his subcontractors. After all, as you know, if the subcontract falls down we don't relieve the prime contractor. We hold the prime contractor

responsible for the work that he has placed with his subcontractor. So that, when it comes to termination, while we do not necessarily allow compensation on the subcontractor's work as profit, nevertheless we do try to recognize that for the risk that was taken and for the time and effort that was spent in handling the subcontract work, the prime contractor may be entitled to compensation in certain cases in the form of a handling charge which may be reimbursable in connection with his own settlement. The extent and amount of the compensation will vary, depending upon the amount of the risk, the amount of work involved, the amount of supervision over subcontractors, and other such factors.

MR. BAILEY: Isn't it true that the parts on hand in the inventory that came from the subcontractor customarily are treated as items subject to a profit allowance just as other raw material would be? In other words, isn't there a difference between the subcontractor's claims and the contractor's claims on parts that have already been received from subcontractors? It seems to me there is. I am just trying to clear up the fact that the purchased parts received from the subcontractor take on the shape of raw materials, while the claim from the subcontractor is an entirely different category, and there has been a good deal of question as to whether any profit should be allowed to the prime contractor on the claims of the subcontractor.

COLONEL DOWNIE: That is correct.

CHAIRMAN PELOUBET: There is one question here somewhat similar to that for Colonel Downie. "If an abnormal profit has been made on a particular contract prior to termination, what effect, if any, will this have upon the settlement for work in process and material inventories? Let us assume that there are other 'loss' contracts which will enter into renegotiation." This question is from E. P. Priebe of the Spartan Aircraft Co. of Tulsa, Okla.

COLONEL DOWNIE: To rephrase the question, it might be stated that the contractor has a contract running over a period of a year, and he has completed six months of the contract on which he has made a profit up to the time of termination, say, of 27 per cent, just to pick some figure out of the air. Then the remaining six months' deliveries under the contract are canceled, and the contractor comes into the procurement office to work out a negotiated settlement.

As I mentioned this morning, a negotiated settlement is not limited to 6 per cent, but as one of the other gentlemen mentioned, we do, nevertheless, have to have some sort of guides to follow in handling these matters. As a general rule, where we handle a claim on the inventory basis, what we try to do is to figure out the rate of profit the contractor would have made if he had completed the contract and apply that to the work in process on the part of the contract that has been terminated.

However, if that rate of profit is abnormal, as this question indicates it would be, then I can assure you that we endeavor to cut it down. In cutting it down, we use as a guide the results of renegotiation. That is merely a guide. That is not the formula that we follow, but we use it as a guide in determining what might well be considered a reasonable profit for that particular company on the type of work being done. Somewhere in the neighborhood of the over-all profit allowed on renegotiation and what the contractor would have earned on the contract if he had completed it will be considered fair and reasonable in the particular case.

I doubt very much, where the contractor was earning 27 per cent on the part that was completed, whether he could ever get that amount on the part that was canceled. So far as we are concerned (I can only speak from our own experience), profit on the terminated portion of the contract runs anywhere from 6 per cent up to about 15 per cent, sometimes a little more or less, but that is generally the range.

Colonel Renwick, can you add anything to that?

Colonel Renwick: That is substantially as we would handle it in Chicago, I would say.

Chairman Peloubet: It is now four-thirty. Our panel members have been working hard for an hour and a half, and while we still have a number of questions, I think when you read the Year Book you will see that most of the apparently unanswered questions have been covered in some way.

I wish to thank the speakers and the panel members for a splendid contribution. I hope that everybody here has learned as much as I have.

. . . The meeting adjourned at four-thirty o'clock . . .

SESSION III

COST ACCOUNTING IN TOMORROW'S COMPETITIVE MARKET

TUESDAY MORNING, JUNE 27, 1944

WILLIAM E. JACKMAN, Accounting Supervisor,
Color Print Service, Eastman Kodak Company,
Rochester, N. Y., *Chairman*

Howard C. Greer is Vice President and General Manager of Kingan & Co., meat packers. Kingan & Co. has its head offices and main plant in Indianapolis, with branch plants in a number of eastern and southern cities. Mr. Greer has served as General Manager of this Company for the past five years, following twelve years as an executive of the American Meat Institute, in charge of accounting, cost, statistical, and marketing services. His previous experience included a number of years in public accounting, business research, and teaching. He is a past president of the American Accounting Association, a member of the National Association of Cost Accountants, and an associate of the American Institute of Accountants. He is the author of a number of books and articles on accounting subjects, and has been a frequent speaker before business and professional societies.

Robert N. Wallis is Assistant Treasurer of the Dennison Manufacturing Company. A graduate of Amos Tuck School of Dartmouth, he spent one year with the Parks-Cramer Company of Fitchburg, Mass., and four years as Treasurer of the E. Stebbins Manufacturing Company of Springfield, Mass., before joining his present company. With Dennison he served for six years as Factory Accountant, four years as supervisor of market research and sales planning, and four years as Secretary to the directors doing trouble-shooting jobs prior to 1939, when he was appointed Assistant Secretary in charge of accounting, cost accounting, budgets, and financial operations. Mr. Wallis has been active in N.A.C.A. affairs for a number of years and has served as a director of the Springfield, Boston, Cleveland, and New York Chapters, as well as Vice President of the Boston Chapter.

COST ACCOUNTING IN TOMORROW'S COMPETITIVE MARKET

CHAIRMAN MONROE: Yesterday I made some remarks to start the session, and I said that the General Chairman had very little to do. I want to retract that statement. Getting up this morning and getting down here on time is the biggest job I have had all summer.

Some of you who know me probably know that I am somewhat antagonistic to and prejudiced against planners—at least professional planners. I also think that the word "postwar" is probably the most abused and overworked word in our language today. However, the Program Committee felt that it was timely and necessary that we do some thinking and planning for the future. So our subject today is "Cost Accounting in Tomorrow's Competitive Market."

Our Chairman for today is William E. Jackman. Bill has been active in N.A.C.A. for many years. He is a Past President of the Rochester Chapter and is now a National Director. Several years ago he participated in our program at the Atlantic City Conference. He has been with Eastman Kodak Company for twenty-one years. He started out as a graduate civil engineer and deteriorated into an accountant. I am quite happy this morning to turn the program over to Mr. Jackman.

CHAIRMAN JACKMAN: As Mr. Monroe has told you our conference theme for today is "Cost Accounting in Tomorrow's Competitive Market." If anyone here believes that he does not have a real personal obligation to aid in solving tomorrow's problems, he has already broken faith with our heroes who are fighting and dying that there may be a tomorrow. The torch of victory thrown from their hands must be borne forward and upward to the realization of a new era of industrial, economic, and political peace, wherein all men and women shall have equal opportunity to enjoy the privilege of serving the needs of one another in full freedom.

Self-centered interest on the part of the individual, the corporation, the labor union, a political group, or even government, if

allowed "free rein" in tomorrow's economy, can but lead to the complete destruction of civilization a few generations hence.

We, therefore, charge each and every one of you to "raise your sights" and broaden your horizons by personally becoming crusaders in quest of the "Holy Grail" of a better life for all peoples.

We suggest to you the following armor for your adventure:

1. A *helmet* of knowledge and understanding. Think, think straight, analyze your problems thoroughly, but having arrived at a wise conclusion, may you have an indomitable will to achieve your goal.

2. A *breastplate* of sympathy and moral principle, which recognizes your every obligation to serve your fellow man.

3. A *sword* of flaming faith in a wise Providence, which will direct and sustain you in making your own personal maximum contribution toward a lasting peace.

Your Program Committee believes that members of the N.A.C.A. have a vital part to play in the wise solution of tomorrow's many industrial and other problems. To the degree that you solve these problems wisely, you will add to the dignity and prestige of your profession as well as to the achievement of an ideal. To challenge and inspire you for your task of tomorrow, we bring you three speakers, each with a practical message.

Our first speaker is Howard Greer. Mr. Greer is Vice President and General Manager of Kingan & Company, meat packers. Kingan & Company has its head offices and main plant in Indianapolis, with branch plants in a number of eastern and southern cities.

Mr. Greer has served as General Manager of this Company for the past five years, following twelve years as an executive of the American Meat Institute, in charge of accounting, cost, statistical, and marketing services. His previous experience included a number of years in public accounting, business research, and teaching. He is a Past President of the American Accounting Association, a member of the National Association of Cost Accountants, and an associate of the American Institute of Accountants. He is the author of a number of books and articles on accounting subjects and has been a frequent speaker before business and professional societies. It is a real pleasure to bring you this morning Mr. Howard C. Greer.

COST REQUIREMENTS OF A COMPETITIVE ECONOMY

Howard C. Greer
Vice President and General Manager,
Kingan & Co., Indianapolis, Ind.

PRODUCTION in this country has been approximately doubled since 1939. We are now turning out enough goods and services to fight a global war and to maintain a high standard of living at home. If the same initiative and energy are devoted to peacetime pursuits after the war, we should attain higher standards of living than ever before. The postwar task of American business is to make this possible.

What we hope to do is to retain the advantages of private enterprise and individual freedom, and to eliminate as many as possible of their disadvantages. Unless this can be accomplished, private enterprise and individual freedom may not survive. To some of us it seems that this problem boils down to objectives which can be stated in the following simple but comprehensive terms:

1. Large production
2. Broad distribution
3. Low prices
4. High wages
5. Continuous employment

This is what the public wants and intends to have. This is what American business must provide. My conviction is that American business can do the job, and can earn a profit in doing it. I believe, however, that business men will have to think first about the importance of the job, and second about the importance of the profit, if they are to reach this goal. If it is true that in a competitive economy business exists because it performs a service, then its main purpose should be to perform the service. Profits should be the measure of how effectively the service is performed. We might well say that we plan to run a good business and expect that it will produce a profit—not that we plan to make a profit and hope we can run a good business.

This isn't nearly as theoretical as it may sound. In a long-range program, it never has been sound to try to force a profit out of an

unnecessary, uneconomic, or inefficient enterprise. The business which concerns itself most with doing a job that entitles it to a profit usually has to concern itself least about the profit being made.

I stress this because I believe that in the postwar world cost accountants can be of most value to managers by helping them to run their businesses better. I hope they will aid actively in plans for making the business of greatest service, in the hope that thereby they may help it to earn a more satisfactory profit. *Earning* the profit is the important part of the job.

Here are some suggestions as to the ways in which I believe cost accountants can help most in carrying out such a program. These are the things which I hope the accountants in our Company will do to help the managers of the business meet its postwar problems. Most of these ideas are not new. I repeat them because they soon will be more important than ever. I emphasize what our executives consider the essential tools of management. I assure you that they represent a very real need in our business. I believe that most of them are equally needed in all industrial enterprises.

Budgets

The budget is a plan of operation, a program of activity. No one should start operations without a plan. No one should try to administer a business without a program. Plans should be made by the managers of the business. The budget is a means of expressing the plans in mathematical terms. Accountants should help the management make up its budgets by developing convenient and practical ways of expressing and presenting the plans in terms of concrete measurements.

Some businesses seem to expect the controller, or the budget department, or the accounting department to "make up the budget." If this means that the accountants are expected to do the planning for the business, it probably is all wrong. The job of the accountants is to set down the plans of the management in understandable terms. If the managers won't plan, the accountants are not likely to be able to do it for them.

Budgeting is often discussed as though it were a highly formalized and intricate technique which no one but the budget expert can master. This leads some operating executives to think about the budget program as though it were a complicated and elaborate mechanism which they cannot possibly comprehend. It is important to explode

this idea. The budget should be an open and familiar book, not a mystery.

Budgeting should be done in terms which the ordinary operating executive can understand. This means that as far as possible the units of measurement should be commonplace things like pieces, pounds, gallons, man hours, machine hours, and such like. Money figures should come in to indicate the final result, expressed in financial terms, and where no other common denominator is possible.

It should be remembered that most members of the organization don't handle money at all. They handle materials, workers, equipment, and customers. The accountant should find ways of measuring the facts about these physical entities in non-money terms, as far as possible. The accountant who can talk the executive's language can find himself more valuable than he ever supposed possible.

What should a budget cover? Every possible feature of the operation for which plans can be made in advance. This includes production, sales, accumulation and distribution of inventories, employment, construction, maintenance, advertising, promotion, and all sorts of minor activities and services.

A good way to start is to give every executive the broad outlines of the general over-all program for the coming year (or other selected period), a brief statement of what will be expected of his department, and a request that he prepare a plan, showing what he expects to accomplish, how he expects to do it, and what he expects it will cost. He should be encouraged to call on the accounting department or budget department for whatever help he needs in getting up the figures and presenting them in understandable terms. The accountant should prepare forms for his use and supply figures where he needs them. The operating executive should do the planning.

These preliminary plans must be combined and coordinated into a satisfactory comprehensive plan for the whole enterprise. Departments which are related should compare notes and reconcile their respective plans. General executives should review the final result, make necessary adjustments, and refer back the finished program with whatever explanation is appropriate.

At every stage of this work the help of the accountants is vitally important. They have the figures needed to express both past experience and anticipated future results. They have the "know how" for preparing, summarizing, and presenting the data. But it is essential that they grasp the significance of the plans as the motivating

force in operating the business, and that they do not think of them merely as problems in addition and multiplication.

When the plan goes into operation, the accountant has the further task of reporting on the accomplishments under it. This may be through comparison of actual and estimated results. This may also be through actual control of certain types of expenditures, such as those for new construction, advertising, donations, and other items. Accountants should devise the means of keeping everyone in the management fully posted on progress under the plan. They must know whether amounts budgeted are fixed or flexible, estimates or limitations. They must understand the significance of variations from the budget and must be able to explain them to the management.

This is the number one service to be performed by the accounting department for the management of the business.

Standards

Managers must concern themselves with not only what things *do* cost, but what they *should* cost. This calls for the establishment of a standard of cost performance for every process, operation, product, and activity. No work done in a business should be considered under satisfactory control until a study has been made and a standard established. The management must depend on its engineers, time study men, and cost accountants to develop the required facts and to arrange for their presentation in understandable form.

A standard may be a theoretical ideal, a practical objective, or an expected accomplishment. It may continue unchanged over a long period, or it may be adjusted from time to time as circumstances warrant. The important thing is that it be established on some basis thoroughly understood by those concerned, and that it serve continuously as a point of reference in all analyses of operating costs or results.

There is a common conception of standards as applying only to productive labor. This narrows the field too much. Standards may be established for practically every cost factor—materials, labor, power, tools, repairs, selling, delivery, order handling, and even administrative supervision. They may be expressed in a variety of terms—cost per unit, production per period, output per man hour, total dollar expenditure, etc.

The list of activities for which standards have been established

in our company may be of interest in this connection. These include, among numerous others, the following:

1. Productive labor cost per unit for every product and process.
2. Percentage of non-productive to productive labor for every department.
3. Power cost per unit of processing activity for every manufacturing and service department.
4. Output per machine hour for all important processing departments.
5. Plant output per week for each major product group, expressed as a percentage of theoretical maximum output.
6. Cost per service unit for each important plant service department (e.g. cost per car for icing, switching, and cleaning services; cost per cwt. per month for freezer storage, etc.)
7. Sales tonnage per salesman per week for each class of products.
8. Gross selling margin per route per week.
9. Weight per order, and items per order, for each class of customers.
10. Truck delivery expense per day on city deliveries, and per truck mile on country deliveries.

For each of the above operations, we establish standards, reviewing them not less than once a year, and changing them as conditions warrant. Actual performance for each of the several thousand operations involved is checked against the standard—sometimes daily, in most cases weekly, and in all cases at least once a month.

To keep abreast of the current of competition which we are likely to meet in the future, every manager must be able to answer both of the following questions about each feature of his operations:

1. How much can we accomplish, and what will it cost, if we do this job as well as can be reasonably expected—that is, "at standard"?
2. How near are we now to "making standard," both in output and in cost?

The answer to the first question indicates the profit possibilities of a well-operated business under existing market conditions. The answer to the second question explains the accomplishments of the business as they are, in terms of what they ought to be with performance at standard.

If the accountant will transfer at least half of his attention from costs as they are to costs as they should be, he can render more valuable services to management.

Incentives

We all expect pressure from workers for the maintenance of high wage levels after the war. The only way that high wages can be maintained is through high production. Workers and management

must cooperate to make this possible. The management's part in high production comes through designing, planning, organizing, and aggressive selling. The workers' part comes through better performance on the job.

To encourage better performance, we should have worker incentives for every manual operation, in plant or office, in which the output can be increased by more effective effort. Experience indicates that large increases in workers' earnings may be brought about through an incentive system, without any corresponding increase in unit costs. With proper control of volumes and overhead, the manufacturer's costs may be greatly reduced at the same time his workers' earnings are being greatly increased.

Incentives are directly related to standards and thus come within the province which the cost accountant shares with the industrial engineer. The effect of an incentive program on costs is obviously of primary importance. Its relationship to standards and budgets, to analyses and controls, needs no emphasis.

The first essential of a satisfactory incentive system is a sound basic policy. What are the purposes to be accomplished? Are we trying primarily to increase workers' earnings, to increase output per unit of labor time, or per unit of plant facilities, or to reduce unit costs? Some of these objectives may be more important than others. Some may have to be sacrificed for others. The objectives must be clearly understood at the outset.

It is essential that there be fair dealings with the workers in the administration of the incentive system. If it is designed to help them increase their earnings, the management should not try to limit the amount of the increase which may be obtained. The worker must be assured that if he can increase his output, the increase in level of his compensation will be permanent, not temporary. An incentive system in which standards are continuously raised as performance improves is neither fair nor practical.

It is also essential that the incentive program be "sold" to the workers, not imposed upon them against their will. It should be something that they welcome and profit by, not something they dislike and complain about. This requires an honest and sympathetic approach by the management and some adroitness in putting the plan before the employees. Intelligent labor leaders will recognize an incentive system as a means of bettering workers' earnings and will cooperate with the management in making it effective.

The practices our company have found effective include the following: (a) incentives are established chiefly to attract better workers through higher pay, and to turn out more product with existing plant facilities; (b) when a standard is established, we guarantee not to raise it as long as the method of operation remains unchanged; (c) practically 100 per cent of the saving through increased output goes to the worker, the company getting its benefit through reduced overhead and increased output; (d) there is no limit on the amount a worker can earn by beating the standard; (e) while the company explicitly reserves all rights as to the establishment of a fair standard, we invite and have received the collaboration of labor unions in carrying out the program; and (f) extension of the incentive plan to new departments and operations is influenced chiefly by the desire of the workers to have the program established and their willingness to cooperate in making it a success.

There are two features of plant labor incentives which will call for increasing attention in the future. Cost accountants may well be thinking about them and studying their possibilities now.

One is the organization of a work program on an "output" basis instead of a "day work" basis. In future years, a week's work may consist of producing so many units of product, not of putting in so many hours. A good incentive plan should be so developed that the emphasis can be shifted to letting the worker go home earlier, instead of staying to turn out more work, if his desires and the circumstances of the business warrant this. Many plants operate on this basis now.

There is also the probability that we shall come eventually to a fixed weekly or annual minimum wage for plant employees, instead of hiring their time merely by the hour or by the piece. Such a plan may become a powerful incentive for greater cooperation by workers in furthering the plans of the management. That it will require drastic modification of many existing cost techniques goes without saying. I suggest here merely that this change is probably coming, and that cost accounting had better be ready for it.

Incentives can be used effectively in selling and office activities as well as in manufacturing. Incentives for salesmen, if carefully designed, should lead to much improved performance. Straight percentage commissions or bonuses for increased output are too crude to be effective in accomplishing the objectives usually set for the sales force. Careful attention must be given to time and expense incurred, selling prices and commissions obtained, order handling and

other service costs, and the like. A scientific plan for salesmen's commission is not too difficult to develop and usually can be worked out with far less effort than is devoted to the establishment of incentives in manufacturing departments.

Many operations in the office also can be reduced to standards and placed on an incentive basis. The requisites are that work be sufficiently uniform for standardization and the accomplishment measurable in strictly mathematical terms. Our experience has been that office workers are less receptive to the idea of measured work than plant employees and require more careful "selling" of the program before it is installed.

If the accountant will approach this problem with the thought that the basic objective is to gear the organization to higher speeds and greater output, to make every worker's contribution more substantial and thus more valuable, and to enlist the full cooperation of all parts of the organization in doing a better job for their common benefit, he can render an exceedingly valuable service in this field.

Classification of Expenses

Most expense classifications grow up like Topsy. A start is made by establishing a separate account for each item which runs into a good deal of money. As people get curious from time to time about various items, they are subdivided to answer whatever questions are raised. New classifications are added when new kinds of expense are incurred.

Since interest sometimes centers on a division by "object of expenditure," and sometimes on division by "function," the classification is likely to be partly on one basis and partly on another. Thus wages may be charged partly to accounts for "labor," and partly to accounts for "repairs," "power," etc. The result often is a classification which is not complete or consistent on either basis.

In a business of any size or complexity, it is necessary to have expense data compiled both ways—not in combination, but separately. The expenses should be analyzed so that there is one complete analysis by objects of expenditure, and another complete and independent analysis by functions, departments, or operations. The latter classification is essential for cost purposes; the former is essential for many types of analyses which the managament may find it necessary to make to keep in touch with the results of its operations.

This "double" classification of expenses is not difficult or expensive to maintain. There may be more sheets in the expense ledger, but the analytical work itself is simpler than when an attempt is made to combine the two analyses into one.

Under such a system each expense charged on the books receives a double account-code number. One part of the code signifies the primary expense classification; the other denotes the functional expense classification. The mechanical work is particularly simple if the expense classification is handled on punched cards, but it presents no complications if a manual distribution is employed.

An important advantage of setting up the accounts on this basis is that the accountant will find it necessary to sit down and think out a logical and flexible classification which will cover all conceivable types of expense and all imaginable functions which may become important in the operation of the business. He must work out a grouping and arrangement of the accounts which will place like items in related account series and which will facilitate quick collection of any combination of figures which may be useful to the management. After a lot of digging, he will be able to lay a sound foundation which will permit the development of a thoroughly integrated and coordinated account structure.

Viewed from the standpoint of type alone, the expenditures of a manufacturing business require only a few primary groupings. The following, for example, cover comfortably all the operating expenses of our particular business, incurred in some twenty manufacturing and distributing units, totaling over $20,000,000 a year (exclusive of the cost of raw materials, which are classified separately):

1. Wrappings and packages
2. Direct labor
3. Indirect labor
4. Social security
5. Travel and other personal
6. Power, heat, light, etc.
7. Supplies and incidentals
8. Repairs and maintenance
9. Rent
10. Insurance
11. Taxes
12. Depreciation
13. Outside services
14. Advertising
15. Bad debt losses

All expenses we incur are charged to some one of these primary groups. The total for each class of expense for any unit, or for the entire business, and for any period, can be obtained from our accounting department at any time on ten minutes' notice. No amount of functional analysis or cost allocation is permitted to obscure these basic expense factors.

In practice, we have been able to reduce the number of primary groupings to ten, so as to work them into a decimal-code classification. By using separate series for (a) manufacturing, (b) delivery, (c) selling, and (d) administration, and by a certain amount of substitution and combination, we have developed a neat, compact, and comprehensive classification scheme, which meets all our requirements, and even leaves one or two vacant spaces for possible expansion. This is illustrated in the accompanying Exhibits 1 and 2.

In addition to this primary classification, we maintain an independent record in which the expenses applicable to each function and activity are separately summarized. In this so-called departmental analysis, we recognize such functions as production (by departments and processes), sales (by channels and classes of customers), manufacturing services (auxiliary to plant operations), and selling services (auxiliary to sales). We assemble in this record the costs of each activity, apportion and redistribute these costs among the departments to our hearts' content, and use the resulting figures in our cost calculations. All this is done without disturbing in any way the primary expense classification previously described.

The importance of this setup is that it provides both an analysis of expenses and a computation of costs. In many accounting systems, one of these activities interferes with the other. The company does either a poor job of cost figuring or a poor job of expense control. Both are important, and the classifications should be made accordingly.

It goes without saying that the same principles for classifying and allocating costs should extend through the distribution functions as well as through the production functions. The treatment of selling and administration expenses for cost purposes should not differ from the treatment of manufacturing expenses. Further comment on this subject appears later in this article.

ILLUSTRATION OF DUAL LEDGER CLASSIFICATION

General Ledger

Series	*Class of Account*
100	Assets
200	Liabilities and net worth
300	Sales and other operating revenues
400	Cost of raw materials and parts
500	Manufacturing expense
600	Delivery expense
700	Selling expense
800	Administrative expense
900	Non-operating income & expense

Notes

Department ledger includes all charges and credits in general ledger accounts in series 300-800 inclusive

Plant service departments accumulate charges for apportionment to production departments

Sales service and general service departments accumulate charges for apportionment to distribution departments

Production and distribution departments carry profit balances agreeing in total with operating section of general ledger

Department Ledger

Production

(subdivided by products or processes, as required)

Plant Services

Superintendence
Personnel
Engineering
Laboratory
Standards
Power house
Receiving
Shipping

Distribution

Routes
House
Chain stores
Wholesalers
Institutions

Sales Services

Supervision
Promotion
Order handling
Delivery
Warehousing

General Services

Accounting
Traffic
Purchasing
General

EXHIBIT 1

BASIC OPERATING EXPENSE CLASSIFICATION

Group	*Manufacturing* (500 series)	*Delivery* (600 series)	*Selling* (700 series)	*Administrative* (800 series)
00	Packages	....	Bad debts	....
10	Direct labor	Drivers' wages	Salesmen's salaries	Clerical salaries
20	Indirect labor	Garage wages	Supervisory salaries	Executive salaries
30	Social security	Social security	Social security	Social security
40	Power, light, and heat	Road expense	Travel expense	Travel expense
50	Supplies and incidentals	Gas and oil	Staty., postage, telephone	Staty., postage, telephone
60	Repairs and maintenance	Repairs and maintenance	Maint. sellg. equipt.	Maint. office equipt.
70	Rent, insurance, and taxes	Rent, insurance, and taxes	Rent, insurance, and taxes	Rent, insurance, and taxes
80	Depreciation	Depreciation	Deprec. sellg. equipt.	Deprec. office equipt.
90	Outside services	Outside storage	Advertising	Miscellaneous

Notes on Classification

Groups 10–20–30 represent total cost of employment of labor
Groups 40–50 represent services, supplies, and incidentals
Groups 60–70–80 represent cost of utilization of facilities
Group 90 represents expenses incurred for services of outside agencies

Notes on Allocation

Groups 00 and 10 include charges allocable directly to individual products or activities

Groups 20 and 30 vary with direct labor charges and may be allocated accordingly

Group 40 covers special services measurable as such to products or activities

Groups 50 and 90 include incidental overheads allocable by direct measurement or arbitrarily

Groups 60, 70, and 80 vary with use of facilities and may be allocated according to investment and rate of use.

Notes on Variances from Standards

Direct comparison of standard and actual expense in groups 00 to 30 may be made weekly for each department.

Comparison of budgeted and actual overhead may be made for groups 40 to 90 combined, or individually, as wanted.

EXHIBIT 2

Classification of Costs

Costs, like expenses, are of several types. They can be handled to best advantage if they, like expenses, are placed in suitable basic classifications.

Cost accountants talk most frequently about the distinction between so-called "variable" and "fixed" costs. This distinction has an important economic significance. It is not, however, of greatest practical significance in the mechanics of cost work.

The most obvious distinction in computing the cost of any product, function, or activity, is the distinction between "direct" and "apportioned" costs. Certain outlays apply directly and specifically to certain activities. Others are of a more general character and must be apportioned among the activities on some practical and realistic basis. Some apportioned costs are variable, in the sense that they are increased or decreased by the amount of the several activities, though not relating directly to any one of them. In the mechanics of cost finding, however, it is extremely difficult to trace and measure them. The extent of their variation often is only assumed and frequently impossible to prove.

As a practical matter, a manager can be better satisfied with a cost estimate which isolates the direct charges and calls everything else "overhead," than with one in which an elaborate attempt is made to place in one group all "variable" costs, with the assumption that all of the rest of the charges are "fixed." The amount you are going to spend specifically on a particular job is something you can take hold of and deal with intelligently; the number of additional revolutions of the turbine in the power plant which may be caused by the job is a little too remote to be a dominant influence in the making of a decision on the task at hand. At all events, a separation of (a) direct costs, (b) apportioned variable costs, and (c) apportioned fixed costs is better than one which attempts to make the sole distinction as between variable and fixed.

In our business, we figure closely and continuously the direct cost applying to every product we make and every process we conduct. In production, these direct charges include materials, packages, productive labor, non-productive labor, social security, and special production services. In selling, they include transportation, delivery, order handling (clerical), and possibly intermediate warehousing. From experience, we know that we shall be "out of pocket" specific

sums for any given manufacturing or selling job we do. Those we must recover in our price.

Beyond that, we know that the average overhead expense applicable to the operation, on sound cost accounting principles, amounts to so much per unit, of which some fraction (from one-fourth to three-fourths, according to the operation) represents fixed overhead, and the balance variable overhead. We can't be precise about those amounts, and we don't try to be, because the total overhead is continuously affected by a thousand other operations and activities on which decisions are being made independently. We work with the direct costs which we know to be standard for the work to be done and make whatever allowance we can for other classes of expense.

This would be dangerous and delusive if we treated as direct costs only the labor and materials used in manufacturing processes. Our analyses, however, do not stop there. Direct distribution costs are calculated as exactly as direct production costs, and all collateral activities are separately costed and carried into the equation.

At the root of this method of analysis is the realization that cost finding must be related to the job at hand and adapted to the purposes to be served. One trouble with much cost finding activity is that it is directed to the sole purpose of calculating one final composite cost of some single article by a process so complex and elaborate that no one can quickly trace back the individual cost elements to determine their significance in the current situation.

My experience indicates that a manager can work more effectively if he has at his disposal all the individual elements necessary for cost calculation in a form which permits them to be combined on short notice into any sort of composite he may need at the moment.

These cost element figures may be thought of as building blocks, from which any structure wanted may be readily put together and as readily taken apart and rearranged when circumstances require. If the cost accountant insists on presenting nothing except finished structures, with all the joints mortised and the edges glued, he will deprive the data of much of their usefulness.

Product Costs

The earliest efforts of cost accountants were directed to the calculation of the cost of each finished article produced by the business. This was accomplished by allocating all production costs among the

several products. The result was a set of finished product costs which in the aggregate equaled the entire cost of production incurred in operating the plant.

Later, the effort was shifted to the compilation of product costs which were made up of the several cost elements taken "at standard," rather than at the supposed "actual." In both instances, the attempt was to identify the amount of the total outlay applicable to each individual product, assembly, part, or other article manufactured. This was, and is, an extremely important contribution. Comments in the foregoing sections were not intended to belittle this accomplishment. It is important, however, to view these "allocated costs" in the right perspective.

First, they provide, in most businesses, the absolutely essential segregation of costs between those applying to goods which have been sold and goods which remain on hand. The product cost accumulation process is indispensable in arriving at "values" properly assignable to goods in process, finished parts, and unsold finished products. Without this assignment of costs, calculation of profits for any period would be practically impossible. Product costs also are of invaluable aid to management in establishing selling prices. It is wrong to suppose that such costs can or should control selling prices, but it is right to assert that these costs are essential to setting selling prices intelligently.

What the manager in charge of pricing must say to himself is not: "This article costs so much, therefore it must be sold for so much." Rather, he must say: "This article costs so much, therefore, *if* it can be sold for more than that, and *if* all other products also can be sold for more than their computed costs, and *if* the costs do not change in the meantime, the business will make some money."

He may go on from there with reasoning along the following lines: "The market for Product A is highly competitive; the best price we can get may not recover our full allocated cost; nevertheless, it is necessary that we have this product in the line to help get business on other products which may be more profitable; if we do not recover our full cost on Product A, the margin on other products must be high enough to absorb the part of the overhead assigned to Product A which the price of Product A will not cover, etc." When he has gone through his entire list of products, looking at the cost and the potential selling price of each, he can estimate the probable profit

of the business as a whole on the over-all volume he hopes to obtain.

Of course, a good manager does not stop there. If the cost of certain products, figured at reasonable standards for reasonable volume, exceeds the obtainable selling prices, the proper move is to attack the costs and attempt to reduce them. "What is the matter with our operations if we can't make this article at a price which other people apparently are contented to accept? Are we doing the job efficiently? Are we using a raw material that is too high priced, or wasting too much of it in processing? Is our labor skilled, properly supervised, and working up to capacity? Is our production schedule properly organized? Are our facilities adapted to production of this article? Would more efficient machinery, or better layouts, or better handling, cut the costs?" These are constructive questions, inspired by cost-price comparisons.

Of course the management may attack not only the costs, but also the cost accountants. They may say, "You fellows don't know how to figure. Your standard labor costs for these operations must be too high. You must be charging too much overhead to this product. Our plant is as good as anybody's, but our cost department doesn't have sharp enough points on its pencils."

This gives the cost accountant his opportunity. If he merely says, "Well that is the cost, and that is all there is to it," he has lost a chance to give the management some constructive help. But if he can sit down and explain the various cost elements—what they are, where they originate, what factors influence them, how the apportioned costs are assigned to this particular product, what would be the effect if the basis of apportionment were changed, where operating economies would be significant, and things of that sort—he may be able to illuminate the whole subject so that the management will come to far sounder policy decisions than otherwise would be possible.

The essential point is that the cost accountant should not squander his time trying to convince the management that its opportunities for profit and success depend on setting every selling price by figuring a mathematical cost and adding a profit. There has been some tendency in that direction. I consider it unwholesome. I hope cost accountants will discourage it.

I have already indicated my belief that the future of business enterprise depends on the ability of managers to get out maximum

production, create maximum employment, and keep selling prices down by keeping costs down. The first function of prices is to keep business moving; the second function is to provide a profit for those concerns which do a good job of production and distribution. Product costs tell management what price should be profitable, not what price should be charged.

Distribution Costs

The greatest deficiency of most cost procedure is that it does not provide accurate analysis and allocation of the costs of distribution as distinguished from the costs of production. A cost system which covers merely production costs is only half a cost system. This fact has been emphasized by many speakers and writers for a period of at least fifteen years. It is still true. It is hard to understand why this field remains neglected by many concerns which maintain otherwise well-developed and up-to-date cost accounting systems.

All costs are important in the establishment of selling prices. The distribution cost elements certainly deserve as much attention as the production cost elements. Costs do not stop until the product has been sold and paid for and the money has been put in the bank. The costs incurred after the product reaches the factory door are almost always of significant amount. Sometimes the cost of selling is greater than the cost of manufacture.

Consider how absurd it is to make an elaborate analysis of the costs of raw material, labor, and factory overhead, assigning every item with meticulous care, in the most scientific manner, carry all the calculations to the fourth decimal place, and then "add 50 per cent for selling, administration, and profit." Yet this sort of figuring is done daily in the offices of thousands of business executives who ought to know better—and would, if their cost accountants were on the job.

One thing which apparently stands in the way of development in this field is the idea of some cost accountants that the cost figuring has to be a part of a "system" of accumulating charges on the books against individual articles, or they won't have anything to do with it. They think of cost work as mechanical procedure, related to, and part of, the company's bookkeeping. They ignore the fact that the most valuable usage of cost data lies outside the books of account—in the study and application of cost facts in the shaping of managerial policies.

I suggested earlier that the various cost elements in the business should be segregated and held available for use in quick cost calculations on individual products and activities as required for management purposes. These elements certainly must include the costs of distribution. Some of these are direct charges (that is, applicable to individual products or jobs); some of them are apportioned-variable charges (which must be spread over many products, but which are known to vary with the volume sold); and some of them are apportioned-fixed charges (costs which must be allocated in some way to the various products, but which are practically constant in amount, regardless of volume). In these characteristics, our selling costs are like factory costs and may be charged accordingly.

Some cost accountants are confused by the fact that the allocation of selling costs to individual items in a large line of products sold through a single selling agency involves so many arbitraries that the result seems unrealistic. Quite frequently, however, the portion of distribution expense which can be charged directly is fully as great as the proportion of manufacturing expense that can be directly allocated. Transportation and delivery cost, for example, usually can be assigned to specific products on a factual basis; the cost of putting an order through a warehouse or office can be accurately determined; the cost of storage per unit of product is readily measurable, and so on. Even when selling as such, as well as sales supervision and promotion, must be apportioned arbitrarily, the proportion of "overhead" to "direct" charges is not likely to be top-heavy.

Whether the over-all cost for each product should be carried through to the "sold-delivered" stage on the cost records must be decided according to the circumstances of each individual case. Cumulative cost values beyond the factory door may not be needed for inventory purposes. Whether they are wanted continuously for other reasons will depend on the circumstances.

There is, however, certain work of a strictly "accounting" character which should be carried forward continuously on the basis of analysis and allocation of distribution costs. This is the recording of the cost of operating each selling agency which the business maintains. The selling agency may be a branch warehouse, a branch office, a field route, a representation through a broker or agent, or other means of approach to customers. Just as products go through various processes during manufacture, they go through various chan-

nels during distribution. The cost of maintenance of each channel is highly significant in the management of the enterprise.

In our business we calculate costs continuously for each sales territory and for each special class of customers not served by field salesmen (e.g. house customers, wholesalers, institutions, government agencies, etc.). For each of these selling outlets, several hundred in all, we prepare each week a summary of the products sold, the selling margins earned, and the expense of operation. This is a part of our regular departmental accounting system. Costs are allocated by outlets on a straight accounting basis, with the figures tied in to the general books like those in any "factory ledger."

In this analysis we charge directly to the "territory" the salesman's salary and traveling expense, the cost of local delivery, and the losses on bad accounts. We apportion other charges to the territory on the basis of established "standard costs"—warehousing at so much per cwt., order-handling clerical at so much per order, and sales administrative at a flat amount per week. Statistics are kept for each territory, showing gross and net results, cost per unit for each selling operation, tonnage sold, weight per order, items per order, and other significant information.

Our postwar sales plans include careful analysis of what we believe it will cost to do certain selling jobs, what this will be per unit of product sold, what gross selling margins should be obtainable, and what we can expect in the way of net results. We would no more think of starting a new selling operation without these facts—in the form of objectives, standards, and unit costs—than we would think of adding a new department to our factory without similar information on the production factors involved.

Marginal Costs

Something still in the future for the accounting profession is an adequate treatment of what may be termed "marginal costs." I refer to the process of computing separately the cost of increments to existing or assumed volume—the extra cost of the next additional article we produce.

Ordinarily cost accounting is directed chiefly to spreading costs evenly over the entire output. Little attention is given to assigning costs to "extra" work—the next 100,000 units after the first 100,000 have been run. Few cost systems provide a series of unit costs for various quantities, or at various rates of total output.

As a matter of fact, there seems to be a conspiracy between accountants and managers not to talk openly about this subject. An appreciation that costs may be lowered by increasing volume is thought to lead to that horrible abomination, "price cutting." Managers seem to believe that if the subject is not mentioned aloud, other competitors won't think of it, and price cuts will be avoided. Cost accountants dare not mention the devil for fear he may appear. The effect is often the opposite of the one intended. Lacking a frank discussion of the subject, the manager often assumes that the potential savings from larger volume are greater than they really are. Working with blind guesses instead of carefully developed estimates, and spurred by the wholesome desire to do more business, he may authorize quotations so low that the additional business obtained cannot possibly be of benefit.

I hope that postwar competition will be characterized by greater frankness in facing this problem. I hope there will be less time devoted to public speeches urging manufacturers to "figure in all their costs to be sure their prices are high enough," and that there will be more honest studies of the actual savings which may be obtained through increased volume.

The first requisite is an improved technique for assigning costs to increments of production on some progressive basis. The calculations should indicate not only the average cost for all units produced at any given volume level, but also the cost for each successive increase in volume. The facts can be obtained by proper handling of what I referred to earlier as direct and apportioned costs. The total of the direct expense of doing any job is the minimum additional cost of any volume increment. Normally, there also will be some variable expenses which must be taken into account. The cost accountant should know what they are, and should be prepared to explain to the management what the probable total increase in expenses will be for any assumed increase in volume.

In a business manufacturing a variety of articles, this problem becomes exceedingly complicated, since changes in the volume of one product are likely to affect overhead allocations of all products. Thus the manager and the cost accountant must review the operation as a whole before reaching any hasty conclusion with reference to any single item of product.

In this study, consideration must be given to changes in volume which affect utilization of existing plant, as compared with changes

which involve the construction of new plant facilities or the abandonment of part of the old ones. A department operating at 50 per cent capacity can produce additional volume with very little increase in overhead. A department operating at 95 per cent capacity can not take care of much additional business without an expansion of its facilities. Such expansion may add more to total overhead than can be saved by increased volume.

Conversely, a department may be able to produce at lower overhead with less volume, if the reduction makes possible the abandonment of the least efficient facilities or the least economical methods of production. As all of us engaged in war work know, the last increment of volume may be the most costly, not the least costly. Most plants today could produce at lower unit costs with less volume if overtime could be reduced, overcrowding and rehandling avoided, and other unfavorable cost factors removed.

The fact is that with changes in volume, changes in cost are not smoothly progressive, but instead tend to increase or decrease "by jumps." There are certain points at which the cost of an operation will be considerably increased with a small change in volume. The change is one which requires bringing in a new machine, or a new gang, or a new shift, which will not produce at low cost until there has been a substantial change in the total volume.

It is these "breaking points" in the cost curve which are highly significant. A comprehensive analysis of a factory operation should expose their position and importance. They should receive due consideration when budgets are prepared and when campaigns for increased volume are put in motion.

They exist just as definitely in the distribution field as in the production field. Each selling operation has a point of maximum productivity and economy. When this volume is reached, the extra cost of getting more may be wholly excessive. Addition of too many items to a line, extension of selling efforts beyond natural trade areas, cultivation of classes of customers the business is not equipped to serve—all these may lead to higher selling costs and impaired net results from sales activities.

The instinct to expand a business is a thoroughly wholesome one. It is very likely to lead to lower prices with enlarged profits. The cost accountant should encourage its development. On the other hand; he should help the manager to be alert to the pitfalls of broad assumptions about probable cost changes accompanying anticipated

volume changes. He should make no unfounded assumptions as to what the cost of the next addition to volume will be. He should know the whole problem, from beginning to end, and from top to bottom, so that he can keep the management posted on all the factors bearing on the result.

When he can talk as glibly about the marginal cost of any given job or lot of product as he now does about scientific methods of overhead allocation, he can help to solve one of the problems which will be most pressing in the postwar era.

Income Analysis

One essential of sound cost work is an agreement on which income charges are costs, and which are deductions from, or distributions of, profit. Present-day disagreements on this subject should be reconciled.

The argument about whether interest is a cost has been going on for the entire quarter century of my business experience, and I don't know how much longer. Cost accountants still disagree on this subject. Today it is being suggested (as it was during the last war) that excess profit taxes also are a cost and should be included in cost calculations. These contentions seem to me to ignore the underlying economics of business operations. I have often urged the study of relationships between the income statement and balance sheet as a guide to a clearer understanding on this subject. I urge this again now.

We all know that the balance sheet is an expression of (a) the assets of an enterprise, and (b) the equities in those assets. The two totals are necessarily equal. Similarly, the income statement should be an expression of (a) the earnings from the utilization of the assets, and (b) the distribution of these earnings among the various classes of equity holders.

If the income statement is viewed from this angle, it is obvious that interest, for example, is in the nature of a distribution of earnings rather than a cost. Income and profit taxes, because of their character, may also be most logically treated as a participation by the Government in the earnings of the enterprise, not as a cost of production. This is shown in the accompanying Exhibit 3. The presentation is not new. I repeat it for emphasis.

While the diagram stresses the equality of (a) earnings, and (b) distributions, just as it shows the equality of (a) assets, and (b)

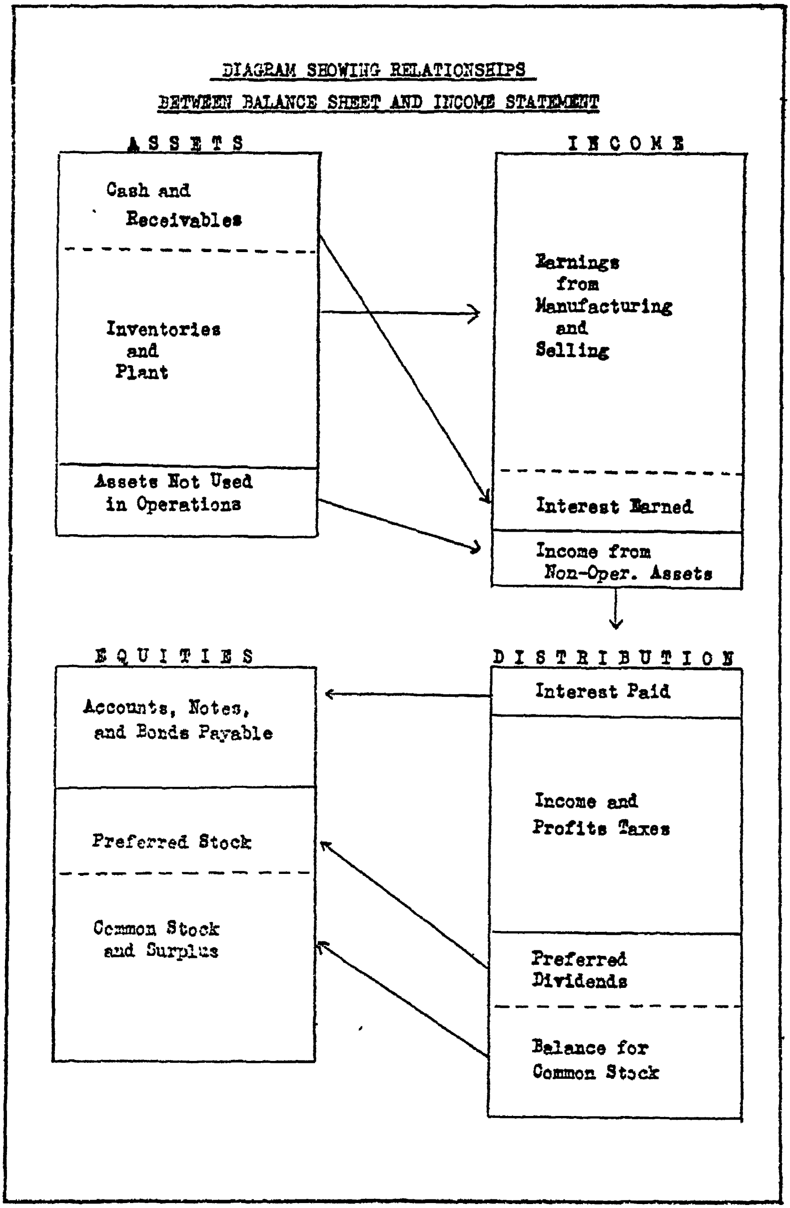


DIAGRAM SHOWING RELATIONSHIPS
BETWEEN BALANCE SHEET AND INCOME STATEMENT
ASSETS
Cash and Receivables
Inventories and Plant
Assets Not Used in Operations
INCOME
Earnings from Manufacturing and Selling
Interest Earned
Income from Non-Oper. Assets
EQUITIES
Accounts, Notes, and Bonds Payable
Preferred Stock
Common Stock and Surplus
DISTRIBUTION
Interest Paid
Income and Profits Taxes
Preferred Dividends
Balance for Common Stock

EXHIBIT 3

ECONOMIC ANALYSIS OF FINANCIAL STATEMENTS

BALANCE SHEET	
Assets	
Cash	xx
Receivables	xx
Inventories	xx
Prepayments	xx
Plant & equipment	xx
Intangibles	xx
Non-operating	xx
Total	xx
Liabilities	
Payables	xx
Accruals	xx
Notes	xx
Bonds	xx
Preferred	xx
Common	xx
Surplus	xx
Total	xx

INCOME STATEMENT	
Earnings	
Sales revenue	xx
Cost of goods	xx
Gross margin	xx
Expenses	xx
Net from mfg. & selling.	xx
Interest earned	xx
Total operating earnings	xx
Other earnings & expenses	xx
Total earnings	xx
Distribution	
Interest paid	xx
Balance before income taxes	xx
Income taxes	xx
Net profit	xx
Preferred dividends	xx
Balance for common	xx
Common dividends	xx
Balance for surplus	xx

RATIOS	
Operating earnings to operating assets	00
Total earnings to total assets.	00
Interest paid to borrowings	00
Net profit to net worth	00
Pfd. divid. to pfd. stk.	00
Bal. for common to com. stk.	00
Com. divid. to com. stk.	00
Bal. for surpl. to surpl.	00
Pcts. of all bal. sh. items to totals	00
Pcts. of all income items to sales	00

EXHIBIT 4

equities, it is not necessary that the income statement be tabulated in this form if the "deduction-and-remainder" method is preferred. The essential facts can be brought out equally well by the latter method, as indicated in the pro forma statement shown as Exhibit 4 above. The essential relationships are indicated in either form.

The point of significance to the cost accountant is that earnings result from the employment of various kinds of assets in the processes of manufacturing and distributing goods or performing services. If he will treat as costs those expenditures relating to the purchase of materials and supplies, the employment of labor and other services, and the operation of physical facilities, he will avoid

the entanglements which result from attempts to include computed interest as a factor in costs, or to argue that a tax based on profits adds to costs.

Reluctance to accept this view seems to arise from the fear of owners and managers that when interest payments and income taxes are set out as deductions from earnings, those hostile to the profit system will distort the facts by public claims implying that stockholders receive all the earnings of the business before such deductions and are unduly enriched thereby. Such claims doubtless will be made. They can be best met by better educating the public as to the disposition of earnings produced by the assets of the business, showing separately as such the claim of lenders for interest, and the crushing exaction of federal and state income and profits taxes.

It seems an unsatisfactory solution to distort the logical presentation of facts on income and its disposition in the hope of frustrating the attempts at misrepresentation constantly made by the conscienceless and disreputable elements in our society. My belief is that in the long run the cause of profitable business will be advanced more rapidly by frankness and logic than by joining in efforts to confuse the issue.

Our main difficulty in this field is, after all, largely a matter of definition and terminology. The words we use for various elements of the income statement are so loosely employed that they have come to connote all manner of conflicting ideas. If we could agree on the proper description of the credit balances found at succeeding stages of an income statement, we could make ourselves better understood.

As an illustration, not a recommendation, let me indicate a possible application of terms which would help to resolve this difficulty and permit discussion of the problem without the risk of creating misunderstandings. Without thinking up any new nomenclature, we might agree that each of the following terms would be employed only with the meaning indicated:

1. *Income,* to designate the over-all concept of gain through the exchange of goods and services, as expressed by the income statement as a whole.

2. *Revenue,* to designate gross realization from goods sold and services rendered.

3. *Earnings,* to designate the balance remaining after deducting from revenues the costs of production, distribution, and administration, excluding payments of interest and income taxes.

4. *Income Distribution,* to designate the allocation of earnings among creditors, government agencies, and owners.

5. *Profits,* to designate the amount remaining for owners after deduction of all classes of expenses, including interest, income taxes, and any other distributions of income to persons other than owners.

Since practically every one of these suggested definitions is in conflict with current accounting practice in some field or other, I can leave them with you only as an easy target for criticism and suggestion. They suggest, however, the necessity for accurate terms and definitions of some kind to facilitate presentation of financial data and to create a common language for the discussion of problems of costs and profits.

Profits

It will continue to be the objective of management to earn a profit. Without profit, there can be no such thing as private enterprise. Without private enterprise, there can be no such thing as freedom or liberty.

Cost finding should continue as an aid to profit making. There should be no mistake about the responsibility of the cost accountant in this respect. The important thing is that cost accounting should promote sound business policy, directed toward long-term service and success, and not toward short-term get-rich-quick schemes. Efforts to maintain uneconomic prices for a restricted output can only bring industry to grief. The objective should be not to kill the golden goose, but to get her to lay more eggs.

I sincerely believe that if industry makes a sound approach to this problem during the postwar years, its future operations can be profitable beyond our boldest imaginings. The latent capacity of our people, our productive facilities, and our natural resources are enormous. If we dedicate ourselves to the task of increasing the flow of benefits from our industry and commerce, with full recognition of our obligation to see that those benefits are distributed as broadly as possible, our private enterprise system will be safe from attack. It should also produce greater profits than ever before.

My sincere hope is that cost accountants will so conduct themselves as to help make this accomplishment possible.

Chairman Jackman: Mr. Greer, I am sure this ovation proves the fine reception of your thought-provoking address this morning.

I think that it might be of some interest to you to know that while we are celebrating our twenty-fifth anniversary this year, the firm represented by Mr. Greer, Kingan & Company, next year will celebrate its one hundredth anniversary, and the Dennihon Manufacturing Company, represented by our next speaker, is celebrating its one hundredth anniversary this year.

Our next speaker this morning, who will talk to us on "Cost Control to Make Profits—Over-all Planning and Control," is Mr. Robert N. Wallis, Assistant Treasurer of the Dennison Manufacturing Company. Mr. Wallis is a graduate of Dartmouth College. He was with Parks Cramer Company, of Fitchburg, Massachusetts, from 1920 to 1921, and Treasurer of E. Stebbins Manufacturing Company, Springfield, Massachusetts, from 1921 to 1925. Since 1925 he has been with the Dennison Manufacturing Company, serving in the capacity of Factory Accountant for six years, for four years in market research and sales planning, for four years as Secretary to the directors doing trouble-shooting jobs, and since 1939 as Assistant Treasurer in charge of cost accounting, budgets, etc., as well as financial operations.

He is a member of the National Association of Cost Accountants, the Boston Chapter, and has served as Director of four chapters, Springfield, Boston, Cleveland, and New York. He was a Vice President of the Boston Chapter. It is a pleasure to present to you this morning Mr. Robert N. Wallis.

COST CONTROL TO MAKE PROFITS—OVER-ALL PLANNING AND CONTROL

Robert N. Wallis
Assistant Treasurer, Dennison Manufacturing Co.,
Framingham, Mass.

THE subject assigned to me is "Cost Control to Make Profits—Over-all Planning and Control." I find difficulty in projecting my thinking on this subject into tomorrow's competitive economy without giving some consideration to the transition period which lies between.

We cannot jump from a war economy to a peace economy overnight. We must work our way out of the war period, through the transition period, and into the peace period. In the process we will find that the transition period will be a turbulent period. There will be no charts. The experiences of no two companies will be exactly alike. The incidence of timing and the degree of adjustment as between companies will vary widely. There will be no consistent pattern in the relative timing of the availability of productive capacity, materials, money (working capital), and the re-establishment of the market.

The transition period will be a period of flux, of rapid changes to meet rapidly changing conditions. There will be dangers to be avoided at every turn. Flexibility will be the prime requisite and woe betide the company which is lacking in this quality.

No general forecast of the transition period for all companies can have any validity. Each company must make its own forecast. If, however, we are to be masters of our destiny in the competitive peacetime economy which will follow the transition period, it will be necessary for us to do a masterful job of planning and control during the transition period. It behooves us to start now. Our immediate task is to weather the storm of the transition period so that we can enter the peace period with sound organizations soundly financed.

The mechanisms of planning and control which will see us through the transition period will serve us in the longer peacetime pull.

Long-Range Planning

Prognostication is not yet an exact science. However, foresight has the one great advantage that it can remedy things which a more competent hindsight can only regret. That enterprise which never takes time out for a long look at the future is very apt to achieve something less than a reasonable accomplishment.

From the accountant's point of view, long-range planning is useful primarily to make sure that working capital will be available to meet each need as it arises. It involves the translating of marketing, manufacturing, and research plans into terms of expenditures required, and probable income to be expected. To extend through the transition period and into the postwar era long-range planning should cover at least three years and maybe as many as five. Anything more than five is apt to be too speculative.

The technique of long-range planning calls for a series of hypoth-

eses, ranging from minimum to maximum for the several factors involved. These hypotheses may be based on surveys, market, product, and technological research, etc., or they may be broad guesses. Some companies are already engaged in making comprehensive surveys of their potential postwar business. The data which these surveys produce make excellent material for the accountant in developing long-range financial forecasts.

Full participation in long-range forecasting by all divisions of a company is desirable. But the lack of a comprehensive company program should not restrain the accountant from assuming a range of theoretical conditions on which to predicate his forecasts.

In making a forecast, the principal factors which must be taken into consideration are:

Sales—The forecast should assume several levels, both of physical volume and of dollar volume. If the products manufactured are few, forecasts of individual items may be feasible. If many lines are manufactured, over-all figures will prove just as useful.

Gross Profit Margins—Here we refer to the expected sales less manufacturing costs. Since both selling prices and costs may show considerable deviation, it is usually necessary to assume certain minimums and maximums. These may be based on prewar experience, but they should be adjusted on the basis of the best possible estimate of future trends.

Non-Manufacturing Expenses—Analysis of the historical pattern of non-manufacturing expense in relation to sales is a good starting point. Adjustment for known or estimated changes in organization, policies, and underlying conditions should be made to determine a probable expense range for each of the several volumes of sales.

Net Profit—From the foregoing (and perhaps taking into account other factors not mentioned) a range of net profit figures will result. This range will probably run from losses under the worst assumptions to profits under the best. Such a series of forecasts will serve to demonstrate what must be done in obtaining sales and reducing costs to enable the enterprise to make satisfactory progress.

Durable Asset Investment—In many companies the present inability to purchase needed facilities has added to the company's temporary liquidity. In such cases, when conditions change, purchases of new facilities will be accelerated, probably exceeding

normal depreciation charges. It is first necessary, therefore, to estimate plant expenditures during and immediately following the transition period. The excess of these expenditures over the depreciation which is normally included in costs will give a rough indication of the additional capital needed for this purpose.

Current Asset Investment—In making a forecast, cash balances and other so-called cash items make up the residual amount left after computing and summarizing the other forecasts. It is not necessary to work out detailed forecasts of all cash transactions. The current asset investment, therefore, is made up principally of inventories and receivables. In projecting the probable investment in these items, past experience again provides a good starting point.

At Dennison we find that the ratio of these investments to sales is very useful because, for the most part, they tend to vary with sales. Any such projection, however, must be adjusted to allow for delays in liquidating terminated contracts during the transition period, to allow for the possible slowing up of collections, and to allow for other changes in fundamental conditions.

Current Liabilities—Current liabilities are, in effect, the temporary investments of others in our business. They include principally accounts payable, accruals, short-term loans, and the tax provision. In the latter case it is the net amount over and above the amount of tax notes on hand which is important.

The dangers inherent in a tax provision which is not covered by tax-savings notes have been pointed out frequently of late. Suffice it to say here that any change in the amount of any of these factors, and particularly any reduction in them, will represent the withdrawal of capital which others have invested in the business. A forecast must include an allowance for such changes.

Financial Policies—Such considerations as determining whether dividends can be paid and in what amount, whether it is possible to retire debt or to call senior stocks with high cumulative dividends, and whether additional financing or refinancing is desirable, all depend on the probable future working capital and surplus positions. To make a well-rounded forecast, it is necessary to include these as factors on some hypothetical basis.

When projections of all of these factors have been completed, it becomes possible to establish a series of condensed balance sheets

which will be orthodox in appearance except in one particular. They will show as the balancing factor the cash excess or deficiency which may be expected for the various volumes of business used in the forecast and for the several minima and maxima of the other factors. If deficiencies appear, it then becomes necessary to determine how they will be financed. (It is outside the scope of this paper to discuss the different methods of financing such deficiencies.)

In all of this, it is more important that forecasts be made than that precision of detail be achieved. After all, everything about a forecast is an estimate. Even precise programs for plant rehabilitation or for building up depleted inventories may be way off in timing. The longer the range, the less accurate the prediction.

Therefore, broad assumptions predicated on past experience and in sufficient number to cover a reasonably wide range of conditions will prove fully as useful as a so-called scientific analysis of all the factors. No matter how carefully the future may be plotted, it is impossible to predict the precise conditions which will be confronted.

Before leaving the subject of long-range forecasts, we should consider for a moment their use. In the first place, they cannot be used as standards of performance. Their great value lies in the fact that when a pattern of long-range forecasts has been set up, short-range budgets can be thrown against the pattern to indicate year by year whether the enterprise is heading in the right direction.

More especially, they enable—even encourage—management to adopt corrective measures to meet an impending situation well in advance of urgent need. "Forewarned is forearmed."

Short-Range Controls

Because a subsequent speaker is to discuss the subject of shop cost controls, such controls will not be discussed here. It is not amiss to say, however, that standards of production, standards of labor and material usage, and standards of indirect expenses, with which actual results can be compared and variances analyzed, are an essential feature of any short-range control program.

The controls which will be discussed can ordinarily be predicated on well-founded expectations. The conditions which will prevail should be reasonably closely predictable, and a fair comparison with actual results should be possible.

At the Dennison Manufacturing Company our short-range controls are built on forecasts and budgets. Although we are talking now of

short-range forecasts, we make a distinction between them and budgets. The forecast covers a somewhat longer period of time, usually a year ahead, and is used primarily to indicate probable trends. Ordinarily it is not used specifically as a check against actual performance. The budget, on the other hand, is a virtual standard for a brief period against which actual performance is measured.

We believe that any short-range control should include, first of all, a prediction of basic conditions for at least one year in advance and, more specifically, for the next three months. It should also include a forecast of performance for one year in advance and a budget of performance for three months in advance. Analysis of variances from the budget should be made each month.

Our forecasts and budgets are revised quarterly. These revisions are based on foreseeable changes in fundamental conditions as indicated by most recent experience. They may be skipped or short-cut if conditions have not changed materially.

It is axiomatic that these short-range forecasts and budgets should be built up from as much detail as possible and that they should be based on and reflect specific plans. Such forecasts and budgets are most useful as controls because they indicate in advance whether or not the plans on which they are based will yield optimum results both as to profit and as to the maintenance of working capital. If optimum results are not indicated, then revisions of the detailed plans are in order. When the plans have been revised, the forecasts and budgets are of course revised accordingly. Then they are used for checking actual performance.

While we have made a distinction between forecasts and budgets, from this point on they will be used interchangeably.

The Sales and Gross Profit Budgets

These should be prepared by those who best know the market. In our company we have a division which is a branch of the marketing division and which is responsible for pricing, packaging, merchandising, order control, and selling techniques. We have a cost accountant assigned to this division to handle its cost accounting requirements. This man works with the several merchandise line managers in analyzing by lines and occasionally by individual products the probable sales at prices which will yield an optimum volume, and the gross profit margin which can be expected, based on existing standard costs.

These estimates are then checked by the factory as to their capacity to produce the volume specified.

However the sales and gross profit forecasts are prepared, they inevitably become the basis of expense and profit and loss budgets.

The Profit and Loss Budget

In the Dennison Manufacturing Co., this is the basic budget. It has several parts:

Sales and Gross Profits—Prepared as outlined above.

Manufacturing Variances—Our factory cost accounting is based on standard costs and flexible expense budgets for the manufacturing departments. The variances from these standards and budgets are forecast by the chief accountant in conference with the cost accountant in each of the several manufacturing divisions.

Non-Manufacturing Expense Budgets—These are prepared by the head of each of the several divisions assisted by the cost accountant assigned to that division.

Miscellaneous Profit and Loss Items—These are estimated by the chief accountant in conference with other executives involved.

Tax Provision—The tax provision is estimated by the tax department when all the other budgets have been put together and a net profit before taxes has been finally forecast.

Net Profit—This, of course, is the end result of the profit and loss budget.

The detail of the budget is identical with the accounting structure of the Company. While some of the income and variance accounts are lumped into suitable summaries, the expense accounts are listed individually.

Our budgeting technique is built around a standard budget form which is used for all detail regardless of whether it represents income, expense, or variance. The horizontal lines are left blank so that the names of the accounts can be typed in accordance with our account classification.

The headings of the vertical columns include:

1. Actual for year to date (furnished by accounting department).
2. Budget for year to date (furnished by accounting department).

3. Variance to date (furnished by accounting department).
4. Budget for following quarter (by months).
5. Forecast for remainder of the year.
6. Full year forecast (the sum of columns 1, 4, and 5).
7. Original forecast for the full year (furnished by accounting department).
8. Actual for the preceding year (furnished by accounting department).

There are several points to note about this technique.

First, variances are dropped at the end of each quarter, and the actual expense is used in arriving at the revised forecast for the year. The primary reason for this is to reflect future expenditures more accurately. If losses have occurred, the future budget should include whatever plans are made to recover these losses. If plans are not made to recover them, the forecast should reflect the expected increase in expense. On the other hand, there are frequently many expenditures deferred until a subsequent quarter, resulting in temporary gains. These expenses are rebudgeted for the new quarter or forecast for later in the year as the case may be. Thus, the budget is constantly corrected to conform more nearly to the facts.

Second, the budget for the next quarter is set up by months and used on the monthly accounting reports to indicate variances from planned expenditures.

Third, the revised forecast for the year is compared directly with the original forecast and with the preceding year's actual to indicate trends either for better or for worse. Sometimes conditions may make it desirable after the second or third quarter to show not only the original forecast but also the preceding forecast to indicate whether corrective action is beginning to be effective. For this reason, the budget sheets are newly printed each quarter to permit flexibility in the arrangement of the vertical headings.

Fourth, all known data is typed on the forms before they are given to the division heads. This pretyped material includes the actual, budget, and variance to date, as well as the original forecast and the actual for the preceding year.

When the budgets are completed, two summaries are made. The first of these is in the form of a profit and loss statement identical in form with the regular profit and loss statement issued internally each month. The second of these is an expense summary on which are

listed the expenses of all departments except the manufacturing departments.

These summaries and, so far as necessary, the budget detail are reviewed by the budget committee to determine whether or not the various items and especially the indicated net profit is satisfactory. Frequently there is an analysis to determine how it can be improved. And, finally, the budget is used as a standard for comparison with actual performance.

Whatever the form, frequency of revision, or period covered by the profit and loss budget, this type of budget is the number one requirement for over-all control.

Control of Expenditures for Facilities

In a recent address before the Boston Chapter, Mr. E. Stewart Freeman, General Auditor, Economist, and accounting philosopher of the Dennison Manufacturing Co., devoted some time to a philosophical discussion of facility expenditures. This discussion affords such an excellent background for a consideration of the control of expenditures for facilities that paraphrasing here seems in order. He said, in part:

It is a common error to start additions to plants during booms when prices are high and to complete them when they merely contribute to the over-expansion of the depression which follows. It is frequently difficult to distinguish between temporary booms and more permanent increases in demand, but such distinction is essential because investing too large a proportion of available capital in durable assets during booms is a common cause of subsequent insolvency.

It must be remembered that sooner or later selling prices will have to be sufficient to pay for durable assets or a loss will be incurred. Purchase of a machine, therefore, can only be justified by its probable earning power within a reasonable horizon of foresight. If available capital is small, proper control would see that the amount available is auctioned off to those projects which promise the largest return.

Investment in plant falls into two principal classes: (1) to do things which the company could not otherwise do, such as to enable it to produce new or better merchandise, and (2) to reduce the cost of what it is already doing.

To delay the first might mean losing markets and missing opportunities. To delay the second would merely mean spending more for

current costs instead of for durable assets. Therefore, we should be liberal in buying new types of machines and more cautious about buying additional cost-saving machines of a type already on hand.

So much for the philosophical background.

To maintain proper control of expenditures for durable assets, a facilities budget is an essential. Our method involves the preparation by each division quarterly of a budget of the expenditures which it expects to require for one year ahead. This forecast indicates the purpose or purposes of the new equipment such as:

1. Replacement of existing equipment
2. Additional volume of an existing product
3. Production of a new product
4. Cost reduction

The budgets of the various divisions are reviewed by our facilities committee which is composed of the chief engineer, the chief budget officer, and representatives of manufacturing, purchasing, and other divisions involved. The budgets are compared with whatever long-range program may have been set up to indicate variances and to permit the necessary explanations.

When facilities are actually purchased, each facility requisition is reviewed by the facilities committee and approved or rejected by it in the light of the surrounding circumstances. Variations from the facilities budgets are duly noted before approved requisitions are passed along to the chief executive for his approval.

There is an important relationship between the facilities budget and the amount of depreciation charged to costs. If the budget calls for expenditures in excess of depreciation charges, working capital will be affected. Thus the facilities budget and the variances therefrom are as important in the control of working capital as they are in the maintenance of profits.

Inventory Control

Sizable amounts of cash are ordinarily locked up in inventories. When these amounts are excessive, not only are funds frozen unnecessarily, but also there is the danger of serious loss if prices should decline. While this subject may be academic today because of government regulations, the scarcity of materials, and the urgent demand for prompt delivery, it seems likely that it will become of increasing importance in tomorrow's competitive economy.

It is a complex subject. Many factors influence the total inventory investment. Without going into too much detail, these may be listed by responsibility somewhat as follows:

Purchasing
- Trend of raw material prices
- Availability of materials in the foreseeable future
- Length of deliveries
- Opportunity to pick up bargains

Manufacturing
- Need to maintain employment
- Elimination of irregular use of machinery, thus necessitating fewer machines
- Optimum runs
- Proper flow of work
- Effectiveness of planning department

Marketing
- Margin of error in sales estimate on which production is based
- Reasonable delivery schedule under existing market conditions
- Policy in regard to sold-ahead merchandise
- Policy in regard to branch warehousing

Treasury and Accounting
- Need for cash
- Danger of losses from price declines

Because of this complexity, effective control is at once difficult and highly desirable. An inventory control committee should be established, representing purchasing, marketing, manufacturing, warehousing, planning, and accounting.

This committee should be supplied with sufficient historical data to give it background. It should be supplied with current data not only in respect to actual inventories but also in respect to the company's cash and borrowing position, the trend of material prices, and any other information which it finds to be useful.

It should establish a series of budgets for the several groups of inventory accounts on a monthly basis, and it should compare actual results with this budget. It should seek out the causes of variances and advise general management of corrective measures which should be taken.

If our experience is a criterion, this committee will do a lot of groping, but as it gains in experience it will gradually develop in-

creasingly effective techniques. When conditions change and the dangers of restricted cash and of losses due to price declines again become imminent, these techniques will, I am sure, prove extremely valuable.

Accounts Receivable Control

Control over accounts receivable is necessary because money locked up in excessive receivables is unavailable for other more profitable purposes, and because every dollar lost in bad accounts means a dollar less in gross profit.

The problem of credit is primarily one of maintaining a proper balance between the risks taken and losses incurred. In a competitive economy there is a continuing conflict between the credit department, which wants to be able to collect promptly all money due, and the sales department which wants to sell as much merchandise as possible. If credit granting is too loose, slow collections, relatively larger receivables, and credit losses result. If it is too tight, profitable sales are lost.

It is up to general management to set the policy which will yield the optimum result. To assist in this process the accountant should, with the help of the credit manager, set up two forecasts. The first of these would budget the amount of receivables anticipated from month to month and the second would budget the credit losses. Variances from these budgets should be analyzed to be sure that the general company policy is being followed.

Other Investments

Any material change in other investments should be considered in the light of their effect on working capital and profit, as well as on other company policies. Ordinarily, these are relatively unimportant but can be subject to enough control so that material changes will not go unnoticed.

Projected Balance Sheet

From the foregoing controls, a projected balance sheet should be prepared at least annually for the close of the fiscal year. If closer control is desired, two or three points in the year can be used. For example:

1. Year end to indicate probable credit position.
2. Seasonal point of greatest liquidity to determine capacity for paying off short-term debts.
3. Seasonal point of least liquidity to determine peak borrowing requirements.

Some companies may find a monthly budget useful.

The value of control over the balance sheet should not be minimized. Money tied up permanently in excessive inventories, receivables, and plant cannot be used for other more profitable or more urgent purposes. Excessive capital must be employed, resulting in higher charges against profits if it is in the form of borrowed capital. The company's seasonal borrowing capacity is weakened, and there may come a time when it loses its financial flexibility, thus starting a vicious spiral which may in turn end in insolvency.

Thus, while it is important that operations result in a profit, it is equally important that these profits be not dissipated either by unwise distributions or by allowing them to become frozen in excessive investments in balance sheet items.

Effective use of invested capital will be one of the prime essentials in the postwar period. I suspect that in the past many enterprises have employed more capital than they have really needed. This was unsound then and will be even more unsound in the postwar period, for larger investments demand larger profits from equal sales in order to meet larger interest and dividend requirements. In tomorrow's competitive economy this must not happen.

Balance sheet forecasting and budgeting—the establishment of standards of performance for balance sheet items—closely resembles the budgeting of expense or the development of standard costs in the old days. It can be just as effective and perhaps just as profitable.

Conclusion

Good long-range forecasting and short-range controls can stimulate management to a variety of actions depending on the trends and situations uncovered. The list is endless. Some of them have been indicated or hinted at here. Limitations of time have prevented a more detailed analysis either of methods or of results. As a matter of fact the needs of individual companies vary widely in matters of detail.

This paper has tried to point out, however, the principal elements which require control and to suggest, albeit somewhat generally, the fundamental character of the controls needed and the general techniques for exercising them. The panel session which follows will afford opportunity for further discussion in more detail.

In the competitive economy of tomorrow, as Mr. Greer has so well said, we may expect to be called upon to sell more goods than ever before at lower prices than ever before, employing more labor than ever before at higher wages than ever before. It will be up to the cost accountant to show how this paradox can be accomplished. The over-all controls discussed here should prove to be overwhelmingly essential.

If any part of what I have said sounds visionary, I would remind you that Thoreau once said of castles in the air, "that is where they should be; now put the foundations under them."

CHAIRMAN JACKMAN: Thank you, Mr. Wallis. May I remind you once more to please write out your questions for the afternoon panel? The session is now adjourned until one-thirty this afternoon.

. . . The session adjourned at eleven forty-five o'clock . . .

SESSION IV

COST ACCOUNTING IN TOMORROW'S COMPETITIVE MARKET

TUESDAY AFTERNOON, JUNE 27, 1944

WILLIAM E. JACKMAN, *Chairman*

David B. Caminez is Assistant Controller of the Hyatt Bearings Division of General Motors Corporation. A graduate of the Wharton School of the University of Pennsylvania with the B. S. degree and of the Fordham University School of Law with the LL.B. degree, Mr. Caminez is a member of the New York Bar and has passed the New York State C.P.A. examinations. He began his business career in 1925 as Accountant with the Fairchild-Caminez Corp., a subsidiary of the Fairchild Aviation Corp., and had advanced to the position of Treasurer and General Manager, when he transferred to the Hyatt Bearings Division of General Motors in 1929. With Hyatt, Mr. Caminez has served as Assistant General Accountant, General Accountant, and Assistant Controller. He has been active in the Newark Chapter of N.A.C.A., which he is currently serving as a director.

Harry E. Howell is well known to members of N.A.C.A. as a past president and as a frequent speaker at national and chapter meetings. Holder of the C.P.A. and LL.D. degrees, and a member of the Massachusetts Bar, Mr. Howell is Controller of the Grinnell Co. of Providence and engages in public accounting as a member of the firm of Howell & Rison. In addition to his activities in N.A.C.A., Mr. Howell is active in the American Institute of Accountants and the National Association of Manufacturers, where he has served on several committees.

Herbert T. McAnly is Resident Partner of the firm of Ernst & Ernst in Chicago. A C.P.A. of Illinois and several other states, he has been associated with his firm for the past 25 years, during which he has specialized in systemization, cost accounting, budgeting, production planning, and other allied industrial accounting services. Mr. McAnly is a member of the Advisory Committee on Accounting of the University of Illinois, and a member of the Advisory Board of the International Accountants' Society. He is the author of numerous articles of industrial accounting subjects which have appeared in various accounting and business publications, and has appeared as a speaker before a number of N.A.C.A. chapters and other meetings of accountants.

William E. Perry is Controller of the Scranton Lace Company. Joining this Company in 1919, he has advanced to the position of Assistant Treasurer in 1927, and to Controller in 1930. Five years later he was elected a director of the Company and now serves also as a member of its Executive and Finance Committees. For many years Mr. Perry has been active in the affairs of the National Association of Cost Accountants. He has made a practice of participating in Conferences held in Chicago, having addressed the 1938 Conference on "Tools for Cost Control," served as Chairman of the Technical Program Committee for the 1942 Conference, and has now participated as a panel member in the 1944 Conference. Elected to the National Board for a three-year term in 1933, Mr. Perry was reelected for a three-year term in 1943 and is currently serving for the second year as National Director in charge of Publications.

COST ACCOUNTING IN TOMORROW'S COMPETITIVE MARKET

CHAIRMAN JACKMAN: In our afternoon session we deal with our cost problems from the standpoint of shop cost control. Our speaker, David B. Caminez, is Assistant Controller of Hyatt Bearings Division, General Motors Corporation, Harrison, N. J. Mr. Caminez is a graduate of the University of Pennsylvania, Wharton School of Finance and Commerce, with a degree of B.S. in Economics. He is also a graduate of the Fordham University School of Law with the degree of LL.B. He is a member of the bar of the State of New York, and he has passed the New York State C.P.A. examinations. He is a member of the National Association of Cost Accountants, and he is a member of the Board of Directors of the Newark Chapter. We are very glad to have with us this afternoon, Mr. David Caminez, who will talk on shop cost control.

CONTROLLING COSTS WITH PHYSICAL UNIT BUDGETS

DAVID B. CAMINEZ,
Assistant Controller,
Hyatt Bearings Division, General Motors Corporation,
Harrison, N. J.

IT IS CUSTOMARY on occasions such as this for speakers to remind their hearers that it is indeed an honor and a privilege to address so distinguished a gathering. Such remarks are usually little more than so much "boloney," tossed out in the hope that they will put the audience in an amiable frame of mind. More important, they afford the speaker a moment or two to recover his composure, for an inexperienced speaker like myself is likely to become a little jolted when he hears his name called next on the program. He hopes then that he will be able to proceed with his discourse without having his breath come in short pants.

In the present instance, it is but the simple truth to say that it is a pleasure and an honor to speak to this distinguished audience. You are truly distinguished in this respect, that there is probably no group of business and professional men in this great country of ours whose members have a keener perception, and a more comprehensive realization of the magnitude of the job that lies ahead for industrial America. As cost accountants, it is our business to get to the bottom of things, to get right down to brass tacks. We know, better than most, that unless costs are rigidly controlled, there can be no profits, and that if there are no profits, there will soon be no business and no jobs.

The Need for Effective Managerial Planning

As cost accountants we know that the vast potentialities, the almost unimaginable possibilities of postwar markets, can be realized only if industry turns out goods of the highest possible quality at the lowest possible prices. The postwar period will be a challenge to American industry to maintain the same high level of production and employment which we have been experiencing under the demands of war for upwards of two years. When we are free once more to turn our minds to thoughts of peace, we must see to it that there is no letdown, but merely a transition in the nation's industrial activities. We must show the world that industrial America can turn quickly and with no appreciable loss of momentum to production for the enrichment, rather than the destruction, of human life.

All of us have an abiding faith in the ability of management to succeed under the free enterprise system, but we would be poor accountants and we would be guilty of abysmal ignorance of fundamental economics, if we did not know that enterprise can function successfully only if it is truly free, free from all unreasonable restraints. It is axiomatic that what is good for the people is good for business. It is good business to have a high standard of living with high level and regular employment. It is expensive and bad business to have the Government trying to do those things which are rightfully the job of industry.

Recognizing the problem is more than half the solution. What has to be done is fully realized. The keynote of the problem is effective managerial planning—the establishment of programs along sound economic lines—programs which are forward looking—programs that will provide full and effective utilization of labor, facilities, and materials.

Some General Aspects of Cost Control

The cost accountant can aid and implement management's plans. He can assist by establishing sound budgets in a form that will have the greatest utility for both top management and operating supervision. He can direct the attention of management to ways and means of increasing effectiveness and reducing costs. He can also drive home the viewpoint that greater values mean expanded markets—that continuity of production and capital turnover are important factors in economic effectiveness.

The cost accountant will have to guide management in the principles of sound budgeting and pricing policies. Budgets should not cover expected expenditures, but rather what ought to be spent. Also, costs do not control prices. The evaluation of your product by the consumer or by your competitor establishes your price. The measure of costs is sales price less an economic profit.

The leadership of this country in industrial progress has been brought about by technological advance and superior management. We recognize as a good management one that has the ability to produce goods effectively at a minimum cost by the balanced coordination of all phases of business activity according to a predetermined plan of operations based upon sound standards of performance.

The contribution which the cost accountant has made to good management has been the development of sound principles of budgeting and cost control. These principles are solidly intrenched in all modern cost accounting systems and are recognized as an important and indispensable part of management technique. A business without a budget is like a plane without a compass—you never know where it's going. True, you may arrive at your destination by "dead reckoning," but that is doing it the hard way.

We have made great strides in budgeting procedures these past 15 years. The budget of today is an effective tool for top management. Too little attention has been given to the development of suitable budgets for operating supervision. We must learn to develop procedures that will be useful to the man who directly controls the operations—who is responsible for creating the costs.

In its final analysis, budgeting is the advance appraisal of an operating program in terms of income and costs. If the estimate indicates satisfactory results, then the advance appraisal or estimate will be adopted by management as the official budget or objective. If an

unsatisfactory result is indicated, the proposed operating program must be changed. It may be necessary to reconsider prices, manufacturing processes, engineering and design, distribution, and many other factors. But once the program is determined upon, it is necessary to control the operations to achieve the planned results.

Cost Control Under Wartime Operating Conditions

It has been said that budgets "bogged" down and were disregarded during the war and that budgeting is a highly theoretical concept and as soon as it ran afoul of emergency conditions it was no longer useful. Such statements, of course, indicate a failure to understand the fundamental principles of budgeting and cost control. Nothing has been proved to the detriment of cost accounting during the early war period, but it had to give way to the more urgent matter of production, to which the cost accountant has made an important contribution in many ways.

Budgeting and cost control are not merely financial manipulations that in themselves will contribute to efficient business operations. They represent rather an evaluation of definite plans of activity based upon predetermined standards of desired results.

Cost control under wartime conditions has been difficult and at times impossible due to the inability to plan and to establish standards. Frequent changes have had to be made in operating programs as a result of the changing demands of war. It was impossible to establish methods or standards because specification changes were so prevalent, the flow of material so uncertain, and the obtaining of facilities so unpredictable. Also the constant turnover of manpower, the problem of training inexperienced personnel, the necessity of meeting new types of inspection requirements, and the numerous artificial controls with which we had to contend, all had to be coped with under a wartime program of regimentation.

Other complications which precluded planning were the lack of experience with the product and the lack of factual background. Under conditions which existed during the first two years of war, it was necessary to improvise rather than plan in order to obtain volume output under ever-changing conditions. With prices based upon costs rather than competitive conditions and consumer demand, the incentive to control costs was not there. Essentially, through renegotiation, the economy was on a cost-plus basis. To have emphasized

cost control during the period of conversion and the initial stages of the war program might have retarded production.

There were some who "sulked" about high taxes and renegotiation and felt that such obstacles were so nearly insuperable that they might as well go on a spending spree. But the more solid thinkers recognized the fact that higher cost of war material means higher future taxes. It is to the interest of all of us to minimize the cost of the war lest in the postwar era we find business being strangled by habits of extravagance which we allowed to develop during the period when the urgencies of war were so great that there was no time to pause and take a sober accounting of costs.

Stabilized War Production Has Restored Cost Control Function

Shortly after the first of this year the production hysteria had begun to subside. Facilities had been obtained, the material situation had eased considerably, and the manpower problem—though it never can be good under wartime conditions—had become fairly well stabilized. It has now become possible to establish longer term programs, though provision must be made for a good deal of flexibility. We have had sufficient experience now to standardize methods and operations, and the more progressive organizations have seized upon the opportunity to re-establish cost control.

For some companies this has become an urgent necessity. All of us know from experience that bad trends and wasteful methods gather momentum and finally develop a crisis condition that requires a major operation to cure. With cut-backs and schedule reductions, what was once a comfortable profit position can turn to "red" very quickly.

Those companies which have established themselves in a favorable profit position are finding themselves the beneficiaries of collateral advantages. To be known as a low-cost producer—one who saves the public's money—has excellent public relations value. Efficient performance should be rewarded in renegotiation, and the low-cost producer will receive preferential treatment in cut-backs and terminations. Likewise, efficient operations minimize the manpower problem.

Aside from the standpoint of the over-all good, it is only intelligent self-interest to get to an efficient operating basis just as quickly as possible. To groom ourselves for postwar competitive conditions we should eliminate the disastrous psychology of waste, extravagance, and inefficiency without delay. To do so will facilitate reconversion

by easing the problem of superfluous personnel and simplifying the task of reabsorbing into peacetime pursuits the hosts of former employees who will be returning from the wars.

Profit and Loss Budget—the Master Plan

When management places its stamp of approval on the profit and loss budget it gives its blessing to the operating program as a satisfactory plan of action. Out of this master plan stem all the budgets for controlling each of the elements of cost and investment.

The budget program is an indispensable tool in that it enables management to keep its fingers on the pulse of the organization. Bad symptoms are quickly detected so that remedial measures may be taken without delay. The development of fixed and variable factors which establish economic or marginal profit provides the essential information for making policy decisions quickly.

The budget is the translation of contemplated future action into financial terms. It is only as reliable as the basic facts upon which it is predicated. If it were based upon guesses it would have little value. On the other hand, if it is developed from careful study and based upon reasonable standards of operating performance applied to each element, it is a certainty that it will prove itself an instrument of almost immeasurable value in attaining the budget which has been set as a goal. Sound budgets and cost control go hand in hand.

Engineering Approach Has Established Controls for Prime Costs

The most effective plans for cost control are those which are direct and simple and which permit performance to be measured on the spot by a visual check. Budgets which are predicated upon remote occurrences and involve the lapse of extended periods of time before results can be established are score sheets rather than controls.

Types of budgets which provide visual control are those expressed in terms of physical units. It is generally accepted practice to calculate standards or estimates for prime costs (direct material and direct labor) on the basis of physical units. This is true whether the cost system is operated on the basis of the various types of standard costs or on an actual cost basis. In most instances, however, physical standards are converted into dollar values, and control in the shop is effected on a financial basis. On the other hand, there are some organizations that do use the standards or estimates which are established in physical terms for the purpose of factory cost control.

This latter method is, of course, the most direct and should be the most effective for shop control purposes.

Direct Material

Material standards are initially computed in terms of usage. The measurement is the number of pieces to be obtained for each pound, foot, or ton of material. An illustration of a material standard is shown in Figure 1. In this illustration you will note the simplicity of the method by which the usage variance is determined as compared with the more intricate process of developing the financial variance.

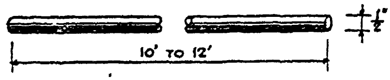
The cost department usually reports the material cost variations in two factors, namely, the usage variance and the price variance. The shop foreman is concerned primarily with the usage variance. Wherever material standards are expressed in physical terms, the foreman has "on the spot" control. A count of the pieces produced matched against the material he has requisitioned enables him to ascertain whether he is meeting the standards. He does not have to await a "score sheet." Furthermore, he is not interested in price variances. It is not his responsibility to purchase in economical lots, to find the proper sources of supply, or to time his commitments. That is another's responsibility, and those factors have no bearing on his performance. For shop purposes, therefore, material costs should be controlled on the basis of physical units.

Direct Labor

Direct labor standards are predicated upon the number of pieces or units for each man or machine hour. The standards are predetermined on the basis of planned methods, routing, and plant layout. The preparatory work necessary for the determination of standards is complex, but the standard itself may be expressed in simple terms of physical output. An example of the development of a labor standard is shown in Figure 2.

The illustration merely shows the method of calculation commonly used to arrive at the labor standard in physical terms. Behind these calculations are exhaustive engineering studies concerning the most effective equipment, the feeds and speeds of machines, the type of tooling to be employed, the work place layout, motion study, and all other relevant factors. When you consider that this process has to be repeated for each operation of each piece part produced, you can appreciate the magnitude of the problem of developing labor stand-

RAW MATERIAL STANDARDS



MATERIAL CODE - S - 12
SPECIFICATION - SAE 3120

PART NUMBER	PIECES PER POUND
A	2
B	3
C	2 1/4
D	2 3/4

EXAMPLE

PHYSICAL CONTROL

Foreman Requisitions 1,000 lbs. to produce Part No A

MATERIAL SHOULD YIELD	ACTUAL YIELD	LOSS
2,000 Pieces	1,950 Pieces	50 Pieces

FINANCIAL CONTROL

Part No. A - 2 Pieces per Lb
Std. Cost per Lb. - \$.06
Std. Cost per Piece - \$.03

Requisitioned - 1,000 Lbs.	@ \$ 065	- \$65.00
Production Yield 1,950 Pieces	@ \$ 03	- 58.50
Cost Variance - Loss		\$ 6.50

Usage Variance - 50 Pieces @ \$.03	- \$1.50
Price Variance - 1,000 Lbs @ \$.005	5.00
Total	\$6 50

Figure 1

ards. However, labor standards are a fundamental requirement for shop cost control for this important element of cost.

When production schedules are released, direct labor manpower requirements may be easily calculated. The foreman, by frequent checks, is in a position to know at all times if he is in line where labor standards in terms of physical units are used for shop control

PRODUCTIVE LABOR STANDARD

Example of Calculation of Standard
for one Operation of one Part Number

(After all Engineering Analysis and Time and
Motion Study has been completed)

AVERAGE CYCLE TIME BY WEIGHTED AVERAGE METHOD

Element No. 1 - Position Piece

Time	Number of Studies	Total Occurrences	Total Time
.03	||	-	-
04	~~||||~~	5	.20
.05	~~||||~~ ~~||||~~ |	11	.55
06	~~||||~~ ||	7	.42
.08	|	-	-
		23	1 17

$\frac{1.17}{23}$ = .051 min.

Element No. 2 - Break Corner

Time	Number of Studies	Total Occurrences	Total Time
.14	|	-	-
.15	||	-	-
.18	|	-	-
.19	~~||||~~ |	6	1.14
.20	~~||||~~ ~~||||~~	10	2.00
21	~~||||~~ |	6	1.26
		22	4 40

$\frac{4\ 40}{22}$ = .200 min.

SUMMARY OF ELEMENTS

1	Position Piece	.051 min.
2.	Break Corner	.200
3.	Remove, Inspect, Reposition	096
4.	Break Corner	199
5.	Remove, Inspect, and Dispose	099
		645 min./pc

OPERATING CO-EFFICIENT

Items Directly Connected with Operation
Change Tools
Adjust Machine
Clean Machine
Oil Machine
Material Handling
Service Machine

Items Not Directly Connected
Personal Allowance
Fatigue Allowance
Minor Operating Delays

Total - 96 min. / 8 hr. day

Operating Co-efficient = $\frac{480 - 96}{480 \text{ min. / 8 hr. day}}$ X 100 = 80%

CALCULATION OF STANDARD

1. $\frac{60 \text{ min.}}{.645 \text{ min.}}$ = 93 pieces per hr. gross
2. 80% Operating Co-efficient
3. 93 x .80 = 74.4 pieces per hour net
4. $\frac{100}{74\ 4}$ = 1 344 hrs. per 100 pieces

STANDARD - OR CONTROL INFORMATION FOR SHOP USE

1 344 HRS. PER 100 PIECES OR
595 PIECES PER 8 HR. DAY

Figure 2

purposes. If his checks were accurate and comprehensive, the statement recording performance when issued in terms of physical things would merely confirm his findings.

Expense Budgets for the Shop

All manufacturing costs other than direct material and direct labor are gathered together into a classification which we term shop over-

head, manufacturing expense, or burden. This expense consists of numerous elements of a diverse nature. The usual treatment of expense or overhead is to resolve these diverse items into dollar values. The sum total is divided into fixed and variable expense and is classified in ten or less major groups. These groups are then subdivided into their respective principal accounts.

Shop budgets are usually expressed in rates that provide a money allowance for each unit of production, plus a monthly fixed allowance. The unit of production which is the basis of the allowance is stated in terms of productive labor, productive hours, or physical units of production. A typical financial budget given to a shop supervisor is illustrated in Figure 3.

Some organizations base budgets on a review of past performance and determine allowances by graphic or mathematical projections. By this method obvious inconsistencies are corrected for so-called "nonrecurring" items, with allowances made for known changes, such as wage or salary changes, price advances, engineering changes, and other reasons. There are others who scrutinize each expense element, weigh out and determine the correct usage in relationship to production, and then evaluate the resultant. This latter is the more accurate approach.

When the budget is established, each supervisor having budget responsibility is usually consulted for his practical view. There is a psychological advantage in this, since the supervisor is thereby given a voice in the establishment of the standard against which he is to be measured. He is given his rates, after management approval, and is expected to confine his expenditures to the budgetary limits.

Limitations of Present Shop Budget Approach

Unless the foreman has the time to devote to clerical duties or the necessary clerical assistance for keeping a record of his expenditures as they occur—which, in fact, means that unless the foreman has his own personal accounting department—he is unable to determine his current budget status. He is forced to rely upon the statements furnished by the cost department for data by which to measure the efficiency of his performance. These statements are not available until after the fact—sometimes so long after as to have little or no value.

One of the outstanding weaknesses of usual budget procedures is the failure to give due consideration to the foreman or operating supervisor. He is often given a budget expressed in technical ac-

EXPENSE BUDGET - FINANCIAL

DEPARTMENT 6 - ASSEMBLY

	VARIABLE ALLOWANCE % STANDARD LABOR	MONTHLY FIXED AMOUNT
INDIRECT LABOR		
Supervision	4.50%	$ 750
Clerical	1.50	
Laborers	3.50	
Sweepers, Cleaners, Oilers	1.50	
Set-up	6.30	
Inspection	4.00	
Total	21.30%	$ 750
Supplies	3.38	-
Tools	4.66	-
Maintenance	6.99	25
Rework, Scrap, Losses	5.90	-
Power and Utilities	1.05	50
Fixed Charges	-	550
Employes Insurance and Taxes	9.29	50
Sundry Expense	.10	-
Total	52.67%	$1,425

Scheduled Standard Productive Labor $10,000 - Per Month

Figure 3

counting terms, and very little assistance is given from a planning and cost standpoint. The foreman is the man who creates the cost. He is the one who is responsible for output; he uses the material, labor, facilities, tools, supplies—in fact, all the physical elements that constitute costs. He has a line responsibility; his duties are to get things done. The foreman cannot be expected to sit in an office and study

plans or analyze complicated reports. It is necessary for him to be in the shop getting out production. Therefore, it is necessary to give the foreman the service he needs if he is to perform effectively. He should be furnished operating plans and standards expressed in terms that he can readily understand so that he may determine whether or not he is performing efficiently as he proceeds.

One of the difficulties in the present foreman's union problem stems from the failure to give the foreman the recognition and tools which would make him an effective part of management.

The Expense Budget Expressed in Terms of Physical Units

All of us will agree that the most accurate method of budgeting is the appraisal of each element of expense from a physical standpoint. For shop budget purposes, why is it necessary to translate all these items into dollar values? Is it for the convenience of the shop or does it facilitate our accounting? Another question: Why is it necessary to relate all items of expense to the ultimate factor representative of units produced? Why not relate it to the operation which creates or causes the expense? For example, in a budget study you will determine that the receiving department requires "X" men to unload "Y" tons of material. Yet the budget allowance for receiving labor is commonly expressed as a percentage of productive labor dollars.

Certainly you will agree that the usual type of dollar budget does not provide for the direct and accurate measurement of results. It is necessary, therefore, to educate the foreman in the rudiments of accounting so that he will be equipped to exercise expense control. Then the cost department must analyze his variations so that it can help him get back on the beam.

Cost accounting is a management service to facilitate the work of operating heads in attaining efficient results. Don't you think more effective service could be rendered if our procedures contemplated shop's needs rather than education in accounting? Overhead or expense is generally a larger element of cost than direct labor and therefore warrants greater attention from a control standpoint. It would aid materially in shop expense control if budget procedures were designed along the lines in use for the control of direct material and direct labor costs where such costs are controlled in terms of physical units. This may be accomplished by adopting a cost engineering approach.

We are apt to lose sight of the fact that we are spending thousands of dollars in studying all elements of machine operations in order to arrive at scientific standards and then budgeting indirect labor, tools, supplies, etc. (which are very often equal to or greater than productive labor), merely at average rates measured often against bases of questionable value.

We should express expense allowances in terms of tangible things. Let us work out this problem by going through some physical budget calculations.

Manpower

All costs are necessarily geared to the production schedule. From the schedule a determination is made of productive forces by occupation and department. The next step is the establishment of standards for indirect forces. These standards should be predicated upon the requirements of the various types and classifications of indirect personnel.

Figure 4 shows a suggested summary of manpower requirements on an over-all organization basis. This summary is not offered as a specific recommendation, but merely as one possible approach to the problem. You will note that the forces are divided into major classifications, namely, productive, indirect fixed, and indirect variable. The forces are also shown by department or functional responsibility. This summary may be developed from the standards applied against the requirements based upon the operating program.

Productive forces may be computed by extending the manufacturing schedule by the direct labor standards. Fixed indirect forces are determined as a matter of management policy. Variable indirect force standards may be expressed in a number of factors, depending upon the type of services required. As an illustration, there are a number of occupations required to directly service productive workers. Typical of these are group leaders, laborers, inspectors, tool crib attendants, time checkers, and similar occupations. The standards for these could be expressed in relation to the number of productive operators serviced. Sweepers and plant protection classifications may be related to the area serviced. Setup operators would be predicated upon the number of scheduled setups.

An approach to a manpower budget for a productive department is illustrated in Figure 5. You will agree, I think, that this type of

MANPOWER BUDGET - MANUFACTURING

BASED ON MANUFACTURING SCHEDULE FOR MONTH OF 1944

	DIRECT			INDIRECT							
	DEPT. 1	DEPT. 2	TOTAL PRODUCTION	POWER HOUSE	MACHINE & TOOL MAINTENANCE	PLANT ENGINEERING	PRODUCTION CONTROL	INDUSTRIAL RELATIONS	FACTORY MANAGEMENT	TOTAL INDIRECT	TOTAL FORCES
Productive Workers	50	35	750							XX	750
FIXED											
Supervision	2	2	35	1	5	6	5	3	4	24	59
Time & Motion Study-Engineers										6	6
Purchasing-Traffic										4	4
Factory Accounting										6	6
Plant Protection								6		6	6
Hospital-Welfare								3		3	3
Power Plant				3						3	3
Total	2	2	35	4	5	6	5	12	4	52	87
VARIABLE											
INDIRECT LABOR											
Supervision	2	1	20		3	3	4			26	46
Clerical-Salary					2	3	35	8	4	90	90
Clerical-Hourly	1	1	6							18	24
Laborers	2	2	40		2	2	25			35	75
Sweepers-Jaintors	2	2	28	1	3	19				27	55
Bldg. Attendants						6		6		12	12
Set-up Men	3	2	40							-	40
Engineers						5			2	30	30
Inspection	5	3	68		2					7	75
Power House Att				3						3	3
Hospital Att.								3		3	3
Tool Crib Att.	2	1	18		1	1				2	20
Sub-Total	17	12	220	4	13	38	65	17	6	253	473
MAINTENANCE											
Machine and Tool	5	3	71	1	3					4	75
Bldgs. & Grounds						25				25	25
Sub-Total	5	3	71	1	3	25				29	100
PRODUCT SALVAGE	2	2	40								40
Total Variable	24	17	331	5	16	63	65	17	6*	282	613
Total Expense Forces	26	19	366	9	21	69	70	29	10	334	700

Figure 4

budget would be more intelligible to a foreman than would the financial budget shown in Figure 3. The various budget factors used to develop manpower allowances would be compiled and given to the foreman in advance of the budget year. The extension of these standards would be more complex than that of financial allowances related to a single factor, such as productive labor or hours. How-

MANPOWER BUDGET
DEPARTMENT 6 – ASSEMBLY
FOR MONTH OF ______ 1944

	BUDGET BASIS	STANDARD FORCE REQUIREMENTS	FINANCIAL ALLOWANCES TO RECONCILE WITH FINANCIAL BUDGET
Productive Forces	Manufacturing Schedule	50	$X.XX Per Allowed Hour
Indirect Force Standards			
Supervision	Fixed Personnel – 2 Balance–1 for 25 Operators	4	Fixed – $XXX Plus $XXX Per Month Per Variable Employe
Clerical–Hourly	1 for 50 Operators	1	$X.XX Per Allowed Hour
Laborers	1 for 25 Operators	2	$X.XX Per Allowed Hour
Sweepers	Floor Area	1	$X.XX Per Allowed Hour
Set–Up	Scheduled Set–Ups	3	$X.XX Per Allowed Hour
Inspection	1 for 25 Operators	2	$X.XX Per Allowed Hour
Total–Indirect Labor		13	
Tool Repair	Tool Usage (Std. Route Sheet)	1	$X.XX Per Allowed Hour
Oilers	Machine Operating Hours	1	$X.XX Per Allowed Hour
Machine Repairs	Machine Operating Hours	3	$X.XX Per Allowed Hour
Total–Maintenance Labor		5	
Product Salvage	Manufacturing Schedule	1	$X.XX Per Allowed Hour
Total Non–Productive		19	

Figure 5

ever, it would be the responsibility of the budget or cost control department to make this computation each time the manufacturing schedules are released, presumably once a month. This would parallel the usual treatment of labor standards. We do not ask the foremen to set up or analyze the standard time allowance. On the contrary, we give the final answer.

It is obvious that once the budget factors are resolved into terms of manpower, the foreman has only to "count heads" to determine if he is in line. Then he may devote his energies toward maintaining the production schedule upon which his requirements are predicated.

The control of indirect labor by means of manpower allowances supplementing the dollar allowances is in extensive use today. This is one of the more important elements of shop expense, and it is one of the least difficult to control if handled on a physical basis.

Supplies

Operating or indirect supplies consist of many different kinds and types of materials. A review of the expense materials catalog or inventory records in a manufacturing plant will reveal that there are hundreds of items which are necessary for the proper functioning of the operations. A casual or superficial examination is likely to result in the conclusion that this classification of expense is too difficult to control on a physical basis. However, a detailed analysis of a particular department will reveal that this type of expense is not spread over too many major items. You will be interested to know that an analysis was made of a department performing some rather intricate machining operations of a precise product on a volume basis. This department had a personnel of 100, equipment valued at $550,000, and occupies 21,000 square feet of floor space. In analyzing the indirect supplies of the department in question, for a particular month, it was established that seventeen major items of supplies comprised 97 per cent of the expense for this account classification.

It is well to keep in mind that the usage of each item of indirect supplies is related to some specific factor—the machine, the man, or the area to be serviced. It is necessary to determine the usage so that the proper item will be available when needed. It is the common practice to place the responsibility for maintaining the necessary requirements in the hands of the stores department where historical records are available for determining future needs. It is apparent that more effective control for indirect materials could be obtained through the establishment of usage standards. These may be applied to the production schedule to determine requirements. It should be evident that the establishment of such standards would result in more effective expense control.

A budget established on a physical unit basis would require the

OPERATING SUPPLIES BUDGET
DEPARTMENT I - MACHINING
FOR MONTH OF . 1944

	BUDGET BASIS	REQUIREMENTS	FINANCIAL ALLOWANCE TO RECONCILE WITH FINANCIAL BUDGET
Lubricating Oil	Machine Operating Hours	25 Gals.	$ .XX per Gal.
Cutting Compound	Machine Operating Hours	350 Gals.	.XX per Gal.
Wiping Towels	Per Employe	2,500	.XX each
Paper Towels	Per Employe	100 Rolls	.XX per Roll
Gloves	Per Employe	100 Pair	.XX per Pair
Goggles	Per Machine	10	X.XX Each
Aprons	Per Employe	15	X.XX Each
Safety Shoes	Per Employe	5 Pair	X.XX per Pair
Brooms	Floor Space	3	.XX Each
Cleaning Brushes	Floor Space	15	.XX Each
Cleaning Compound	Floor Space	100 Lbs.	.XX per Lb.
Sawdust	Floor Space	150 Lbs.	.XX per Lb.
Washing Compound	Machine Operating Hours	100 Gals.	.XX per Gal
Slushing Compound	Machine Operating Hours	50 Gals.	.XX per Gal
Emery Cloth	Machine Operating Hours	500 Sheets	.XX Each

Figure 6

analysis of each item of indirect materials in relation to the factor which creates the use. I might point out, in this connection, that the various bases against which the more important supply items are measured are usually available without any extra calculations. A possible approach to this kind of a budget is illustrated in Figure 6.

Tools

Tools and tool maintenance are items of large importance in the metal working industry. There are two types of tools subject to shop control: (1) working or perishable tools, such as drills, cutters, punches, emery wheels, files, etc., and (2) semi-permanent tools, such as hammers, chucks, die stocks, and anvils.

Working tools are usually specified on the routing sheet for each piece part by operation. To establish standards in terms of physical items it would be necessary for the time study department to go one step further after establishing labor time and determine tool life and tool maintenance per number of pieces produced.

For semi-permanent tools the physical standard would be related to machine hours or employees in given occupations, whichever is applicable, and the approach suggested for supplies could be used for these items as well.

In the top half of Figure 7, there is shown the tool and tool maintenance standards as these might appear on the routing sheets. These standards may be applied against the scheduled units of production to calculate the required tool usage. The repair or maintenance standards could be extended to arrive at the number of repair hours which in turn may be converted into force requirements. The lower half of Figure 7 illustrates the manner in which the physical budget for working tools might be presented. Tools not directly related to the manufacturing operation such as hammers, chucks, and die stocks could be budgeted in physical terms in the manner outlined for supplies as shown in Figure 6.

Maintenance

Maintenance labor may be established by a study of each type of equipment, with allowances for periodic adjustments, minor repairs, and major overhauls predicated upon the number of hours of machine operation. The allowances for labor would be expressed in maintenance man-hours, which could be converted into forces, and for the material elements in specific items of maintenance supplies or parts.

Rework, Scrap, Losses

Rejects and scrap would be related to the part numbers scheduled for production. This may be expressed in the number of rejects per

WORKING TOOL STANDARDS

ON ROUTING SHEETS

PART NO.	OPERATION	MACHINE	TOOL NO.	DESCRIPTION	PRODUCTION PER TOOL	REGRINDS PER TOOL
A	101	W & S Turret Lathe	T-1	Form Tool	1,200	12
			T-2	Shave Tool	2,400	12
			T-3	Parting Tool	600	6
			T-4	Boring Tool	600	6
			T-5	Chamfer Tool	1,800	6
B	105	Drill Press	T-16	1/2" H. S. Drill	2,500	25
			T-18	5/8" Counterbore	4,000	10
			T-21	1/2" Reamer	6,000	15

TOOLS BUDGET

WORKING TOOL ALLOWANCE

TOOL	TOOL NO.	PART NO.	UNIT SCHEDULES	PRODUCTION PER TOOL	TOOL REQUIREMENTS	FINANCIAL ALLOWANCE TO RECONCILE WITH FINANCIAL BUDGET
Form Tool	T-1	A	3,600	1,200	3	$X.XX per Tool
		F	5,000	1,000	5	X.XX per Tool
		H	4,000	1,000	4	X.XX per Tool
		K	6,000	1,200	5	X.XX per Tool
					17	
Shave Tool	T-2	A	3,600	2,400	1 1/2	$X.XX per Tool
Parting Tool	T-3	A	3,600	600	6	$X.XX per Tool
		F	5,000	500	10	X.XX per Tool
		H	4,000	500	8	X.XX per Tool
		K	6,000	600	10	X.XX per Tool
					34	

Figure 7

good pieces produced. Standards could be established for rework operations and converted into terms of manpower.

Service Department Budgets

The principle of budgeting in terms of physical units applies as well to service departments. As an illustration, the manpower re-

quirements of the machine maintenance and tool departments would be the sum total of the computed man hours of the departments serviced. The receiving department and storeroom force requirements may be based on the number of tons of material handled. Payroll and personnel department requirements may be based on total employment. The same approach would be used to establish standards for other activities.

For indirect supplies and materials, the approach illustrated for productive departments in Figure 6 would also apply to the service departments. To give a few examples, the boiler plant may be allowed a specified number of tons or gallons of fuel for heating for each degree of average mean temperature. Uniforms for plant guards may be allowed on a per man basis for employees within that classification; shipping containers and supplies for the number of pieces, pounds, or tons shipped; gasoline per mile driven. The allowance for power may be expressed in kilowatt hours based on the operating load indicated by the production schedule.

Other Items of Expense

There are items which appear in shop expense or overhead which are in the nature of assessments rather than expenditures. Such charges are social security and unemployment taxes, vacation allowances, insurance, depreciation, property taxes, rentals, and items of like nature. Items which are assessed on the basis of payrolls are in a sense controllable, but the fact that forces are within budget limits is the assurance that these expenses will also be in line. The other types of charges mentioned are a matter of management policy.

All of the foregoing types of expense should be divorced from shop budgets and controlled as a part of the financial budget.

Reconciliation Between the Physical and Financial Budget

Harry E. Howell, one of the most profound and forward thinkers in the Association, was the first one, to my knowledge, to advocate the development of a cost control mechanism in physical terms. He pointed to the need for this principle of budgeting in the *N.A.C.A. Bulletin* of December 15, 1943. Mr. Howell stated that perhaps we went too far in translating every detail into dollars and that possibly we should establish a control which, though of less precision, would have greater utility.

Mr. Howell pointed out that, on the other hand, general management could not control the broad operations by an inspection of the multitudinous detail controls of a budget established in physical terms or even a summary of the items. He concluded, therefore, that for management purposes these controls could, in most instances, be handled quite satisfactorily in dollars.

It is my opinion that a budget stated in physical terms can be integrated with the financial budget and in that way serve the two-fold purpose of a shop control mechanism and a top management control. As I have previously pointed out, correct budgetary procedure requires the determination of the efforts, services, and things required in relation to an operating program. These should then be evaluated at the projected cost to determine the outlay and establish the financial budget.

Operating departments are held accountable for efficient utilization of labor and material, both direct and indirect, and not for fluctuations in value. Predetermined or standard values could be assigned to the physical units which form the budget base in order to arrive at the evaluation of the financial budget.

For example, if you used 85 cents per hour for a laborer, 20 cents per gallon of lubricating oil, $1.50 each for ½″ H. S. Drills, these values would remain fixed for the budget period insofar as shop budgets are concerned. You will note that the manpower budget shown in Figure 5 provides for assigning a predetermined value to each type of indirect force classification. Likewise, each of the physical budgets for supplies and tools illustrated in Figures 6 and 7 has a column under which a financial value is assigned to each item.

As often as it is necessary, the foreman would be given two separate budget statements. One would show his budget performance expressed in terms of physical units. This type of a report is shown in Figure 8. The second statement would be a report showing the same performance in financial terms. This statement would also be used for top management purposes. A suggestion of this latter type of statement is shown in Figure 9. You will note that there are two variance columns, the first of which is the variations from the physical budget translated into dollars at the predetermined or standard values established at the beginning of the budget period. The second variance column reflects the variations from the financial budget. The figures in this column are obtained by deducting the

PHYSICAL BUDGET REPORT
DEPARTMENT 6 – ASSEMBLY
MONTH OF 1944

	UNITS	BUDGET	ACTUAL	VARIANCE
PRODUCTIVE LABOR	Forces	50	48	2
INDIRECT LABOR				
Supervision	Forces	4	4	x
Clerical	Forces	1	1	x
Laborers	Forces	2	1	1
Sweepers	Forces	1	1	x
Set-Up	Forces	3	2	1
Inspection	Forces	2	3	-1
Total		13	12	1
SUPPLIES				
Lubricating Oil	Gals.	15	17	-2
Emery Cloth	Sheets	200	168	32
Gloves	Pair	63	71	-8
TOOLS				
Micrometers 1"	Pieces	2	x	2
Gages T64	Pieces	6	5	1
Plugs -3" T65	Pieces	8	11	-3
Arbors T66	Pieces	2	1	1
Hammer 1 lb.	Pieces	7	3	4
Anvil T86	Pieces	2	2	x
MAINTENANCE				
Tool Repair – Labor	Forces	1	1	x
Oilers	Forces	1	1	x
Machine Repair	Forces	3	2	1
Bearings X444	Pieces	16	14	2
Gears X666	Pieces	4	6	-2
Cams X888	Pieces	8	5	3
REWORK, SCRAP, LOSSES				
Rework Labor	Forces	1	1	x
Scrap – Part A	Pieces	180	216	-36
F	Pieces	100	87	13
H	Pieces	40	32	8
POWER & UTILITIES				
Power	KW Hours	13,000	12,420	580
Compressed Air	M.Cu.Ft.	500	480	20
Steam	M.Lbs	80	76	4
SUNDRY EXPENSE				
Hospital	Hours	4	13	-9
Welfare	Hours	6	7	-1

Figure 8

translation of the physical variances from the total budget variances. In this manner it is possible to reconcile the financial budget and the operating budget, the difference being explained by value variations, out-of-balance conditions, specification changes, methods, and other changes. With this type of budgeting, these reconciling factors would be available at the time that these statements are prepared.

BUDGET PERFORMANCE - IN DOLLARS
SHOP CONTROLLED AND OTHER VARIANCES
DEPARTMENT 6 - ASSEMBLY
MONTH OF 1944

	BUDGET	ACTUAL	VARIANCES: PHYSICAL BUDGET SHOP CONTROL *	OTHER	TOTAL
Indirect Labor	$ 2,880	2,750	155	-25	130
Supplies	338	350	- 2	-10	- 12
Tools	466	400	41	25	66
Maintenance	724	750	-26	x	- 26
Rework, Scrap, Losses	590	540	60	-10	50
Power and Utilities	155	125	10	20	30
Fixed Charges	550	535	x	15	15
Employes Insurance and Taxes	979	965	x	14	14
Sundry	10	20	-10	x	- 10
	$ 6,692	6,435	228	29	257
Productive Labor	$10,000	9,650	330	20	350

(*) This column represents the extension of the variances in physical units into dollars at standard or predetermined values.

Figure 9

The Magnitude of the Job

I do not intend to convey the impression that the establishment of expense standards in physical terms is easy to accomplish. On the contrary, it would be a job of great difficulty, one that would require the intensive efforts of men of high calibre, and that over a considerable period of time. The initial standards and procedures will

in all probability be crude. Refinement will come as a result of constant study and revision.

Nevertheless, the magnitude of the job should not deter us if we agree that this technique of physical cost control for expense is correct in principle. Very few plants would think of operating without setting up the standards necessary to control direct material or direct labor cost. For a plant starting from "scratch" the establishment of labor standards for each piece part by operation is also a tremendous undertaking, but it is considered fundamental from the standpoint of control.

The establishment of an expense budget in physical terms requires a careful analysis of each expense element in the company's operations. These elements in terms of labor, material, and services must be measured in relation to the factors that require their use. The tremendous benefits resulting from such an analysis and appraisal from a waste elimination standpoint are apparent.

When all items are expressed in value, no individual item has a particular significance in itself. Each item is necessarily judged as a percentage of a total, which is an abstract comparison. It would be difficult to weigh the property of $11,000 a month expense for sweepers out of a total of $200,000, but it would be easy for a manager to comprehend a statement that showed a force of 75 out of a total of 700. Likewise, for example, there may be an account under the supplies group that contains the cost of several kinds of items. The total of the account may be small in comparison to other cost elements. However, upon analysis of the physical items it may be determined that the shop has used 3,000 pairs of gloves for the month, which is two pairs per employee. Comparisons of this kind are meaningful and of real utility in effecting expense control.

The task of sifting out the physical items and establishing usage standards is indeed great. But once established, the upkeep of the procedure should be comparable to the maintenance of labor standards for productive operations.

If you will reflect, you will see that there are a number of departments within each organization establishing the need in physical terms of each individual item used in the operation of the business. The expense material storeroom or tool crib provides the requirements of the various supply items, the master mechanic the tools, the maintenance superintendent the machine parts, and perhaps every division in the organization has some idea of its manpower needs.

However, the control is so widespread that each individual section of the organization cannot have the over-all perspective, and a coordinated result cannot be expected.

A procedure whereby all these requirements are integrated into a central plan based upon management's operating program will result in smoother and more effective performance.

A Plan of Action

Each year in a well-managed organization an operating program is established on the basis of the sales outlook. Some phases of the activity, such as research, engineering, and development are based on longer range plans, a portion of which is allocated to the year's program. After the year's program has been decided upon, a projection is made of the various activities, and plans are formulated. A production schedule is drawn, and on the basis of the schedule a determination is made of the requirements for forces, materials, facilities, tools, supplies, and all the other necessary factors.

Obviously the yearly program will be subject to adjustment in order to make allowance for the fluctuations between the annual forecast and current outlook. It is usually necessary, therefore, to supplement the annual forecast with short-term forecasts to keep the current operations in tune with existing conditions. However, if the initial budgets are soundly based, such changes in the production schedule can be geared to the operations with a minimum of disturbance.

Once the production program is established, whether it be a current or long-term program, a master plan may be issued for all activities of the organization as a whole, supplemented by an individual plan for each operational responsibility.

The principal schedules which flow out of these plans would be as follows:

1. Production schedule
2. Productive material requirements
3. Machine load
4. Manpower requirements by occupational classification subdivided as to—
   a. Productive
   b. Indirect—Hourly
   c. Indirect—Salaried

5. Expense items in physical terms required to meet the production schedule

In war terms, the strategy has been completed, and the tactical forces are all set to do the job. The purchasing organization has all the essential facts regarding the productive and indirect material requirements necessary to embark upon the procurement program. Arrangements may be made to place commitments and to schedule deliveries sufficiently in advance so that economical buying may be accomplished and material handling may be held to the minimum. At the same time, vendors will be able to better plan their operations. The machine load breakdown will indicate where "bottlenecks" are likely to arise and thereby enable the shifting of operations to other equipment types so that more complete utilization may be effected. It is also the basis for determining the necessity for further equipment acquisitions.

The determination of forces sufficiently in advance makes possible more intelligent hiring, training, and upgrading programs. It is also conducive to employment stabilization and minimum turnover. We have learned that instability of forces is one of the costliest and most unsettling factors in the operation of a business and the most harmful from a social standpoint.

The cost control department then goes into action to render service so that the plan may be carried to a successful conclusion. Those in charge of operations are kept informed of the results. As the plans change, the cost control section calculates the new requirements —the reduction of forces in one department, the build-up in another, the need for additional supplies, tools, or mantenance items of some kinds, the reductions in others—all available from the standards that have been established.

Conclusion

I have spoken at great length, and I have tried to convey to you the very important problem that we all are facing. If we want a free and independent America, if we want to retain the American system of free enterprise, then we must make it work effectively when the war is over.

I have tried to point out the job that lies ahead. We have to strive for maximum production so that we may have high level em-

ployment. To do so, we must have greater productivity, which means sound planning rather than improvising, and we must view the economic outlook in a broader perspective.

To attain the heights which we rightfully should, with our resources and "know-how," the burden upon management will indeed be high. There is and will be a crying need for intelligent cost control greater than there ever was before—cost control that will provide a satisfactory tool for the foreman and shop supervisor where the costs are incurred and where the control must be exercised. I have stressed the importance of developing procedures which express facts in the things that are worked with in terms of shop terminology. This new concept means budgeting in physical units, which will not only provide the cost control that will be needed, but will provide the necessary missing link in the chain of full and complete managerial planning. I have suggested to you a procedure for budgeting in physical terms and shown how such a budget would implement the control of expense in the shop. At the same time I believe I have pointed out that physical budgets may be integrated with financial budgets to serve the requirements of top management control as well.

I am of the firm conviction that we, as cost accountants, have a serious responsibility and at the same time a glorious opportunity to be of service. If we measure up to our responsibility, we will not only discharge our broader social obligation, but we will also assume our proper stature as an important part of top management.

CHAIRMAN JACKMAN: Thank you, Mr. Caminez, for a most thought-provoking paper. We will now proceed with our panel discussion of Tomorrow's Cost Accounting.

PANEL DISCUSSION

CHAIRMAN JACKMAN: We have had a great number of questions come in for the afternoon panel session. We will try to cover them as far as possible.

In addition to our speakers of the day we have with us this afternoon three members who will serve on the panel. They are Harry E. Howell, our National President in 1941-42, who is Controller of the Grinnell Company of Providence; Herbert T. McAnly, a Partner of

Ernst and Ernst; and William E. Perry, our National Director in charge of Publications, who is Controller of the Scranton Lace Company. I am sure that we are glad to welcome these additional men to our panel session this afternoon.

In assigning these questions to our speakers and panel members, I am afraid that I have been left somewhat in the position of a magician who was traveling to Europe on a transport, as part of a USO troupe, and had with him a parrot who participated in part of his act. Unfortunately the transport was torpedoed. After several minutes in the water, the magician found himself on a lifeboat, and, glancing to the other end he saw a rather bedraggled looking bird sitting on the edge of the boat. The parrot spotted him at about the same time, ruffled up his feathers, looked at him, and said, "You and your **!!?? tricks."

I am afraid that you will think that I am pretty tricky in the way I assign some of these questions, but I hope you will bear with me.

Our first question asked by G. C. Tilley, Cockshutt Plow Company, Ltd., Ontario, is directed to Mr. McAnly: "Where a manufacturer uses materials of large bulk and relatively low value and employs standard costs, is it usually considered desirable to have the perpetual inventory records of (a) materials and (b) supplies controlled on a value basis, or is it thought sufficient to maintain quantity control only?"

MR. McANLY: Generally quantity inventory records are a part of the production planning setup as an aid to purchasing and scheduling, in which all emphasis is placed on requirements and avialable balances; therefore, there is no need to place values on these perpetual records. Furthermore, if a standard cost system is set up so that price variances are removed as items are purchased and they are carried to inventories at the planned prices, there is no need of carrying perpetual records on a value basis as a part of the cost setup.

On the other hand, if it is a matter of company policy to carry at an average cost until used some items of material which may be purchased in large quantities in somewhat speculative buying, then it is necessary in these cases to carry prices on these large bulk items.

As far as supplies are concerned, after hearing the speaker this afternoon, I think we should be willing to consider rather seriously the use of standards on supplies. However, if standards are not introduced on supplies, only sufficient pricing data need be contained

in the inventory records to enable pricing of requisitions covering usage.

CHAIRMAN JACKMAN: The second question is directed to Harry Howell. "What is the best method of figuring cost of sales for a company manufacturing a large variety of small cutting tools? The sales in many cases cover special tools to customer's specification. There are a great many orders for small quantities of tools, both standard and special. Sales cover not only new tools, but regrinding dull and worn tools. More than half the sales are for regrinding orders." This is submitted by V. O. Whitford of Severance Tool, Inc., Saginaw, Mich.

MR. HOWELL: It seems to me that the answer to this question depends to a great extent on the manner in which the sales price is computed. If it is the custom in this particular business to quote a flat price in order to get the work, then I think that you would require a very good estimating department. The estimating department would have to operate on some very well set standards for each operation or process and on accurate standards for overhead computation. It seems to me, then, unless you particularly want to know the exact cost of any sale, you could very well cost your sales on these estimates, letting your variance accounts at the end of the month pick up the difference between the total allowed costs and total actual costs expended, and pick that variance up as an adjustment of the standard cost of sales.

It is possible that a good part of the sales are made on a stock and labor basis, where the price is determined when the job is finished, or sold on a stock and labor basis with some sort of an upset price. In that case, undoubtedly job costs are indicated so as to arrive at a sales price. Having gotten them, we might just as well use them to cost sales. There are two variations that occur to me. It may be that analysis will show that a great many of the transactions in number represent rather small bills and an inconsequential total of the total sales. In that case, I think you could very well estimate your cost by a percentage of the sales price, correcting that with a special variance account, in which the cost of all small orders, say under $25, if that is the figure, will be collected.

Assuming that all repairs go through a normal routine in the shop, I should think that you would require very careful process stand-

ards, machine standards, operation standards, and labor standards, and having those, you can treat repairs in exactly the same manner as you would new tools sold at a lump-sum price.

It does seem to me that it is impossible to give a categorical answer to this question, but that it is necessary to determine the answer based upon the method used in computing the sales price.

Chairman Jackman: The third question is directed to Mr. Perry. "Due to lack of manpower, are you eliminating budgetary control or merely curtailing less important factors?"

Mr. Perry: We have not eliminated our budgetary control but have curtailed it wherever we could find spots where that could be done. I speak now with reference to the normal manufacturing departments of our business. In new departments, created solely for production of war work, we did not establish new budgets because of the quick changes that were being made. We operate these new departments on an actual cost basis.

Chairman Jackman: Mr. Caminez, Murray Martin of the Kansas City Chapter says, "We are using numerous large graphic charts, showing cost trends and forecasts. These are being presented to factory supervision from foremen up in an attempt to make supervision more cost conscious and more receptive to cost control and reduction. Would appreciate ideas on most effective ways to accomplish a task of this kind."

Mr. Caminez: I would say that there is a general movement in this direction. I think that many of us are trying to make the foremen more cost conscious. I believe that the most effective way to do it is not to try to get over the information in technical accounting terms. I get back to my thesis of expressing budgets in physical units and showing the foremen the results of operations in some manner that they can visualize and more readily understand. For example, in the case of scrap, instead of stating that labor in scrap is 10 per cent of total productive labor, you might show the foreman a chart depicting the fact that the efforts of one day out of every ten are going out of the window. Rather than show the relationship of indirect labor costs in dollar values, show that you have three material handlers for every ten productive workers or four inspectors

for every twelve productive workers. If you will show the relationships in terms that are vivid and crystal clear, I think you will find that it will be very much more effective from the standpoint of getting them to be more cost conscious.

Chairman Jackman: Mr. Wallis, "Have wartime conditions caused your company to change its opinion of what constitutes normal inventory? In other words, will your future so-called working inventory be as large as that carried formerly?"

Mr. Wallis: I do not think there is such a thing as a normal inventory. As for whether we will carry a larger inventory than formerly, we found out during the depression that we could carry a considerably smaller inventory and get along with it. We needed to do that because we were trying to be as liquid as we could possibly be all during the depression years. Nevertheless, our inventory control committee is groping around with this problem now, and one of their jobs is to see that we keep our inventory as low as is consistent with all of the fundamental conditions surrounding it.

There may be times when you ought to have a large inventory. If prices are going up, you may want to buy ahead. If the market is tight, you may want a large finished stock inventory so that you can ship your orders promptly. What we are shooting for is not a minimum inventory, but an optimum inventory, and that will vary from time to time depending on the fundamental conditions.

Chairman Jackman: Mr. Greer, F. O. Kanehl of The Ohio Boxboard Company, Rittman, Ohio, states, "You indicated in your address that changes in standards were made as circumstances warrant. What has been your experience in making such changes? Are they made monthly, quarterly, or annually? If intermittently, what broad percentage of standards would you say are changed within the year?"

Mr. Greer: Our procedures with respect to different kinds of standards vary a good deal. Our labor standards in the plant are hooked up with our incentive systems and are not changed as long as the operation remains the same. Those operations do not change in their character very frequently. However, in doing our cost figuring we are obliged to take into consideration certain things which

affect labor costs but do not affect the standards. For cost purposes we sometimes use the basic standard and then apply a percentage to it, indicating our current performance as it is against the standard as we know it ought to be.

We follow in a very rough and informal way the principle so well outlined in Eric Camman's book on "Basic Standard Costs." If you have not read it, I hope you will read it, but not when you have a hangover.

The most important factor we have to deal with in that respect now is the expense of overtime. Much of our work now is being done on overtime, due to the manpower shortage. We have had some discussions as to whether we should reflect that in our labor cost standards. We decided that we would not do that, but would leave the standards unchanged and would recognize that we have a certain percentage factor to be added for overtime and would take that into account in calculating our cost. At present we take the standard labor cost and add 15 per cent for overtime to give us a measure of what our labor cost will probably be.

Our weekly labor comparisons, where we compare actual cost against standard, are set up to show the excess over a straight-time standard, and then in a column which we introduced a couple of years ago we show the amount of overtime. The amount of excess labor can then be compared with the amount of overtime. Any difference in excess of the amount due to overtime can be assumed to be due to lack of efficiency in operation.

We also have standards for yields, as we call them in our business, that is, the percentage of good products that we get out of a given amount of raw material. Whenever we change a process so that the yield is changed, we immediately change our standards. That may happen two or three times in the course of a year, although on most products it does not change as often as that.

On an item like delivery expense, for example, where we find a gradual and progressive change taking place, we may ignore it until it has grown to such proportions that we cannot ignore it any more, and then we may decide, half-way through the year, that we will adopt a new standard for delivery expense. We then adjust the standard accordingly, and use the new one for the latter half of the year.

Clerical expense for order handling is another one that operates in that same way. We find that that is influenced by the number

of items per order, and when that has grown greatly we have to change the amount of expense per order which we use as a standard. We seldom make a change in an item of that kind more frequently than at the end of a six months' period.

I cannot generalize in answering, but those are some illustrations of the way in which we have tried to deal with that problem.

CHAIRMAN JACKMAN: Mr. Wallis, "The year-to-date budget for the coming quarter, which you mentioned, was a combination of year-to-date actual and the budget for the coming quarter. Since the budget is prepared in advance, the actual to date is not completely known. How do you handle the interim period?" This is asked by M. J. Moss of Rochester, N. Y.

MR. WALLIS: That is a good question. We hold our budget until the end of the quarter and then until the accounting figures for the quarter just closed have been completed. The result is, of course, that there is a period of time when we are theoretically operating without a budget. As soon as the figures are known for the quarter they are slapped on the sheets, and the sheets are rushed out so that the budgeting can be done immediately. The whole process is completed by the 25th of the month.

However, I want to point out to you that the same thing happens in any event. You always have that period while you are revising your budget. Even though you have had a previous budget the new figure becomes your new budget against which performance is measured. So I think we have here a distinction without a difference. Our feeling is that the advantage of having the most recent accounting figures available when the budgeting is going on more than outweighs the disadvantages of operating for a time theoretically without a budget.

We tried for a time to budget by quarters. For instance, at the end of the quarter we would have two months' actual and an estimate for the third month, and then we would proceed to build our budget for the next quarter on that combination. We find that it is more useful and just as advantageous to complete your quarter and then do your budgeting.

CHAIRMAN JACKMAN: The next question is directed to Mr. Caminez. It is submitted by E. H. Coleman of Bird & Son, Inc.,

East Walpole, Mass. "Did I understand you to say that you included setup as burden? If so, why?"

MR. CAMINEZ: Yes, that is right. It suits our operation best to consider setup as a part of burden. At one time we did consider it as productive labor, but it is a matter of preference. It all depends upon the type of operation. There is no set rule. As long as you can get a correct allocation of costs, it does not make any difference whether you consider an item as productive labor or burden. The only thing you should do is to be consistent in your method of accounting. Treat it the same way all the time.

CHAIRMAN JACKMAN: The next question is directed to Mr. McAnly. It is from Lawrence C. Erne of the Fort Wayne Chapter. "The capital investment for the expansion of facilities in the nature of postwar modernization of plant and machinery represents substantially increased depreciation rates. Assuming that projected plant activity remains at the present operations level, how can this increased depreciation be recovered and yet maintain the present price structure, or lower, in a postwar competitive market?"

MR. MCANLY: It is rather difficult to perceive of a modernization program that increases the fixed charges to a greater extent than the reduction in other items of labor and expense resulting from the improved efficiency. If this question refers to an expansion program rather than a modernization program, increasing the capacity of output so that at normal operations the present high production can be maintained without overtime, there should be sufficient reduction in overtime premium cost to more than offset the increased fixed charges. If, however, this is a case where the modernization is merely one of replacement without increase in capacity of output, you might console yourself, if you have to maintain the same price structure and reflect less profit, by recognizing that you have overstated your profit in the past due to not providing for depreciation on a fair replacement value of permanent assets used in your operations.

CHAIRMAN JACKMAN: I believe Mr. Howell has a comment that he would like to make in connection with this question.

MR. HOWELL: I should like to make this comment because it ties in with Mr. Caminez' paper. I do not know whether you will realize until you read it what a major departure he has suggested. It is a very important departure. I also suggest that you read the June 1st *N.A.C.A. Bulletin* containing an article by Dr. Perren, which gives some very interesting commentaries on the growth of cost accounting concepts and cost control thinking.

It ties into this question in this way: I think that we are coming to a point where we are going to have cost control accounting designed primarily in order to see that facilities, men, and material are economically used and properly used. That will be an entirely distinct and separate function from the financial problem.

As to the problem of applying depreciation to a product, we all know the complicated formulas under which we do that, but I think that we have got to come to a point very soon where we realize that although we may justify the application of depreciation for cost purposes that way, it is by no means binding upon the management. Management's job is to recover the total costs, including a recovery of the capital assets expended. To my mind it is up to them as a matter of financial policy, of gaging the market, and of gaging the sales price, to determine how much of a given depreciation or fixed charge they will recover on any given order.

They may very well decide that an entire line of products shall recover merely the out-of-pocket costs and that other lines shall carry what we would ordinarily call a very high gross margin, which is in effect making them carry fixed charges for another group of products. In this particular situation I feel that we are going to face this: Many companies will emerge at the end of the war with very splendid facilities which they have put on their books at, say 15 or 20 cents on the dollar, by purchase from the Government. Other concerns that have not had that opportunity or haven't seen fit to use it will have similar equipment which is costing them 100 cents on the dollar. As far as cost accounting is concerned, you can prove that we have to charge the entire amount of that capital asset over the usable life, but as a matter of financial management, unless we find some extremely gullible set of customers remote from competition, those of us who have the 100 per cent plant are not going to be able to recover the depreciation in the normal time.

CHAIRMAN JACKMAN: I am going to take the liberty of combining a number of questions for Mr. Greer. J. A. Meyer of Chatco Steel Products, Chatham, Ontario, asks, "Would you please outline an incentive plan for a two-man stock department, a five-man shipping department, and a small machine shop, preferably one that involves group incentives?"

W. J. Wemple of Peoria, Ill., asks, "Are foremen and other supervisors paid a bonus in your plant? If so, what is the basis for computing this form of incentive pay?"

Winston Sumner of Peoria, Ill., asks the question, "What is your wage policy in those departments where it is not possible to employ an incentive system so that those employees will feel they are properly compensated for their efforts?"

MR. GREER: I am going to take those question in reverse order, if I may, and they do tie together to some extent and perhaps can be answered all at once.

First, as to our wage policy in those departments where it is not possible to employ an incentive system. We have taken extreme care in our business, particularly with our supervisory employees, to see to it that the compensation of people on an incentive basis did not outrun the compensation of their supervisors. We have followed that very carefully at all times, and when we found that our setup was making it possible for people on an incentive basis to increase their earnings by any very substantial amount, we either put the supervisors on an incentive basis, or if that were not possible, we reflected in some informal way the growth in the earnings of the people on the incentive basis in the earnings of those supervisory and auxiliary departments which were affected.

So far as the foremen are concerned, we do not at the present time have them on a calculated incentive basis. I hope that we may be able to work out something of that kind eventually.

I have pretty clearly in mind what the elements of that incentive calculation will be when we get around to establishing it. In the first place, we will take into consideration the performance against standard on the part of the people who are being supervised. Secondly, we will take into consideration the amount of yield of finished product which we obtain from our raw materials, which in a business like ours, with a very high raw material cost, is an exceedingly important element. Thirdly, we will take into consideration what we

call "degraded" products or, in other language, rejects or scrap, that is, the amount of product that is lost, or the amount of value that is lost, due to failure of the product to come up to standard.

By introducing those several elements into the calculation, I think we can reflect the premium that the supervision should get for increased output, and at the same time exercise a brake on indiscriminate rushing of production by attempting to insure that quality and output will be taken into consideration in arriving at the final figure.

One of these questioners asks what sort of an incentive system I would suggest for a five-man shipping department and a small machine shop. It is pretty hard to establish group incentives when you get down to extremely small groups and highly varied types of work. We have worked out something that we hope eventually to reflect in an incentive in our own packing and shipping department. We have not actually applied it as yet, although we have the component factors worked out.

We have found in a study of our shipping operations that the costs of shipping apparently are affected by three different things. One is the weight of the goods shipped. Another is the number of packages or boxes shipped. Another is the number of individual items which are packed in a box. We expect that we shall be able to work up a combination standard from those three component factors, and ultimately measure the activities of the shipping department in some such terms as that. We do not have it in operation yet.

Finally, the question is raised as to what sort of an incentive plan I would suggest for a two-man stock department in a machine shop. Well, that is almost the limit in smallness of operation and I suppose in variety of operation. The practice we are following in our company in cases of that kind, where it is obviously impossible to establish a satisfactory incentive system based on the service operation itself, is to hook it up with the productive activity to which it most closely relates. We have a number of departments in some of our plants where the men now receive a share of the over-all incentive earned in the productive activity as a whole. In other words, if the departments they are servicing make 110 per cent of standard, the men in the stock department or in the repair department, or what have you, have their compensation increased 10 per cent. That is the only solution that we have been able to arrive at up to now that seems to us reasonable and satisfactory.

CHAIRMAN JACKMAN: The next question we will direct to Mr. Caminez. It is asked by L. W. Bryon of Elmira, N. Y. "To what extent should inspection labor be treated as productive labor? I have in mind receiving inspection where no subsequent productive operations are involved and the material so received is sold to a subcontractor or another prime contractor. Where should this cost be recovered and how should it be allocated product-wise in our own manufacture."

MR. CAMINEZ: This question is somewhat similar to the question about the handling of setup. In this particular instance it would seem to me that the inspection labor in question could very well be handled as direct labor, since it can be conveniently allocated to the operation. The second part of the question refers to allocation to products of our own manufacture. It depends upon the cirmustances in a particular operation. It does not make any difference whether you treat a particular cost as burden or direct labor as long as you do it consistently and you do it the same way at all times so that you do not destroy your comparisons from period to period. There seems to be a general misconception that an item charged to burden becomes part of a pool of a lot of general charges which in turn are distributed to all product costs in some general or arbitrary manner. But there is really no reason why a burden charge cannot be just as accurately allocated product-wise as is productive labor. There are no set accounting rules that prescribe that a specific item should be handled in one way or another. In determining the account distribution to be used, you should be guided by the principle that whatever distribution provides the most accurate allocation with the minimum of effort is the correct one in a particular situation.

CHAIRMAN JACKMAN: The next two questions can perhaps be combined. They are addressed to Mr. Greer. One is from Joseph V. Miccio of Republic Aviation Corporation, Farmingdale, N. Y. "What, in your opinion, are the important items to be considered in the study and establishment of a system of distribution costs for an organization doing a nationwide business in the consumer goods field? What would be your program for the determination of marginal and differential costs of distributing goods?"

Another question, submitted by M. F. Hill of the Oliver Farm Equipment Co. of Chicago, is: "How do you reconcile your sixth and

eighth points? To do a good job on increment costs, it seems necessary to carry overhead distributed on a fixed and variable basis through to departmental and line product cost."

MR. GREER: In answer to the first of Mr. Miccio's questions, as to the items to be considered in studying distribution costs, I can tell you what we do in our company. I do not know whether it would fit any other company or not.

We have our distribution costs broken down into six subdivisions, each one of which is handled separately. Our distribution costing, I might say, is not primarily a costing by product, but rather a costing by channel of distribution. We are concerned with what it costs to operate a branch or to operate a sales territory and we assign our costs accordingly.

The six elements in that calculation are: (1) selling expense, that is, the salary and traveling expense of the salesmen; (2) local delivery expense, that is, the transportation of the goods from the break bulk point or local warehouse to the customer's door; (3) order handling expense, which is the clerical expense incidental to receiving, handling, and writing up orders, and the work of billing, bookkeeping, and so on; (4) warehousing expense, which is the cost of operating local distributive warehouses; (5) bad debt loss expense, which I am happy to say has almost disappeared at the present time, but doubtless will be with us again some day; and (6) administrative and general selling overhead, which includes advertising and sales promotion.

In making the assignments of cost, we charge the selling expenses directly to the individual sales territory. We assign the local delivery expenses directly to the sales territory, or allocate it on a per hundredweight basis if the same local delivery service happens to serve parts of several territories.

The order handling expense is handled on the basis of so much per order, which is not as accurate as it might be, because some expenses vary with the number of items rather than with the number of orders.

Warehousing expense we assign on the basis of so much per hundredweight, having found no better way of assigning it.

Bad debt expense we charge to the individual sales routes up to a certain specified total, because the small losses we consider to be due to failures on the part of the salesmen, either in the extension of

the credit (in which they have some latitude) or in the collection of the account, which is largely their responsibility. The larger losses we charge as a percentage of dollar sales.

The administrative, advertising, and sales promotion expenses are grouped and are charged at so much per route per week on all of our sales territories, largely on a uniform basis but with special treatment for some particular territories.

The other two questions, which came in at the same time, have nothing to do with distribution costs and deal rather with this subject of marginal and differential costs, which I was reckless enough to introduce into my discussion this morning. As I have sat here this afternoon I have been hoping that the building would burn down before we got around to this particular question, but as it has not I will have to deal with it as best I can.

What would be a satisfactory procedure for determining marginal and differential costs of distributing goods? I can only suggest that those techniques, when they are developed—and I know of none that have been developed up to now; at least they haven't received sufficient publicity to come to my attention—will have in them some such elements as the following:

In the first place I visualize a het of cost curves for various types of activities which will show what might be called the "breaking points," at which costs per unit temporarily increase rather than decrease. Such a curve will have a "sawtooth" shape, that is, there will be a bump in it, and then it will decline, and then there will be another bump, and so on. At least we find that is our experience in dealing with such costs, so far as we have gone in plotting them. I think if those curves are adequately established for various types of activity, they will form an important guide to the manager who is trying to determine what volume of business he wants to do.

In the second place, I think that our budgets, as Mr. Caminez has suggested, should be set up in terms which will permit us to visualize the extent to which our manufacturing and other facilities are being fully utilized. In other words, a well-developed budget in the future should show, for every activity, how much unused capacity we have, so that when the manager starts figuring on some additional volume, he will know whether that volume will fit into existing capacity, or whether it will require additional capacity. In that connection a study must be made of the collateral activities involved.

We may have machines which could run longer hours, but if our power plant can't supply the current to operate them, then we may have to make additions to the power plant, and instead of reducing our overhead we may actually increase it.

That is as far as I can go in suggesting some of the things that I think may find a place in those techniques. I am certainly in no position to say what the techniques themselves should be.

In answer to this question about reconciling the two points that I made this morning, which were designated as No. 6 and No. 8, one of those had to do with the difference between variable and fixed expense, and the other with marginal and differential costs. This particular questioner evidently understood me to suggest that we should not pay attention to variable costs other than those directly chargeable to individual products. If I created that impression, I went farther than I intended to go. We make calculations in our business of variable costs, even those which are not direct. I merely tried to suggest this morning that the manager's problem in dealing with his costs seems to me to concern itself most immediately with the problem of the direct charges to the product or activity.

It is too commonly assumed that all so-called variable expenses increase or decrease in direct proportion to changes in direct costs. This is not always true. Certain costs may be "variable," and yet their relation to direct costs may be so remote and may be affected by so many other factors that the manager must not lay too much stress on them when he is making a cost calculation on an individual job, an individual product, or an individual activity.

Obviously, however, it is necessary to take them into consideration if we are trying to determine what I called marginal or differential costs, because it is impossible to determine what the cost of the next increment of business is going to be unless we have some idea as to those apportioned variable expenses which flow along with the direct expenses.

Let me modify what I said this morning by suggesting that perhaps our breakdown should not be a simple two-class breakdown, but rather a three-class breakdown. Mr. Caminez has already suggested this. Let us consider first, direct costs; second, apportioned-variable costs; and third, apportioned-fixed costs. If we break our costs down into those three groups, and deal with them accordingly, I think we will be able to answer the question.

CHAIRMAN JACKMAN: Mr. Wallis, here are two questions for you: "Do you favor sales performance budgets tied in with net profit to be expected on a given group of sales or selling divisions, or do you budget on volume regardless of net profit results. Who makes up your budget committee?"

MR. WALLIS: Primarily our sales division's budget is based on volume. The marketing organization lays plans for obtaining the volume that goes to make up its budget. Secondly, the marketing division's budget is affected by the forecasted net profit. If the net profit as indicated by the forecast is unsatisfactory and it bounces back to the various divisions from the budget committee, the marketing division has to go to work and see what they can do to simplify their operation and still obtain the expected volume at a satisfactory profit.

We have two or three standards that we use in measuring our selling division's expenses. For instance, we are very much interested in the selling cost per dollar sales. Incidentally, as you can well imagine from the variety of products that we have, we have no least common denominator, and the dollar sign finally has to be our least common denominator. Therefore, the selling division keeps pretty careful count on the selling cost per dollar of sales for different types of territories—city territories versus suburban territories versus country territories, and sales of goods to wholesalers and dealers as against the sales to industrial commercial consumers, and so on.

We are also very much interested in the sales to each customer, those who are our principal customers, as against the potential that we have set up. We are interested in the number of calls that a salesman makes on a customer to make sure that he is not wasting time out of proportion to the customer's potential.

We haven't yet found an economical way in our business of getting gross profit by sales territories. We were working on something of the sort, hooked up with a change in our billing technique, when the war came along and we decided that we had better forget about that for the duration, but it is on our list when we can get manpower and equipment again to carry it on. For a great many years our marketing division has been very much interested in obtaining gross profit as well as dollar sales by sales territories and sections.

As far as the budget committee is concerned, to answer the second

part of this question, it is made up of the executive vice president, the treasurer, and the assistant treasurer. The president sits in with this committee when, as, and if, conditions become critical.

Chairman Jackman: Here is where some of the trickiness is going to come in, because I will let you in on a secret. Up to now I have tried to let these fellows have a little preview of the questions. Now they are going to have to take them cold. I direct this question to Mr. McAnly. It comes from Howard Giddings of Richmond, Va. "Consider concerns doing war work where a job order system is used to control costs. A large pool of small drills, reamers, etc., is required to keep the machines going, too large to charge to current monthly expense, and the tools have more than a month's life. What do you consider a fair number of months over which to absorb such a pool of small tools?"

Mr. McAnly: If the amount charged is in excess of normal current monthly expenses, it should be handled as a deferred item and be written off over the number of months that it serves.

Chairman Jackman: William E. Sauder of the R. G. LeTourneau Company, Vicksburg, Miss., directs this question to Mr. Howell: "What is the proper accounting treatment of the labor, material, and overhead which go into parts or products which are eventually scrapped?"

Mr. Howell: I presume this scrapping is more or less unintentional so that what we really have is a product which we expected to be a good product up to the point when something happened to it. I presume that whatever the basic system of allocation of labor, materials, and overhead is, it would apply up to that point. At the point where the loss occurs the difference between whatever scrap value there might be and the cost accumulated at that point would be charged at the point where the loss occurs.

There are a few complexities there. For instance, in foundry work I know quite often that the fault may appear at the very last stage of machining and turn out to be a fault that occurred in the foundry, which could not possibly be identified up to that point. In that case you quite often have a matter of charging back not to the department where the error was found but where it occurred.

Possibly I misunderstand the question, but it seems to me that the accounting for it is to assume that it is going to be a good product and to use whatever system you are using up to that point. Then at the point where it is found to be faulty and has to be scrapped, compute the salvage value and take the difference and charge it back to the point where it can be ascertained the error occurred rather than where it was found.

If that does not answer the question, perhaps Mr. Sauder will ask something more about it.

Chairman Jackman: Does that satisfy you, Mr. Sauder?

Mr. Sauder: Would you count that as overhead expense of the department that caused the defect?

Mr. Howell: Well, you possibly know that I haven't very much use for all of these terms such as "overhead," "direct," and all that sort of thing. I think Mr. Greer a few minutes ago pointed out they are all costs. Some you can apportion directly to the product or the process with precise accuracy. For others you have to use some relative method of apportionment. For others it is an arbitrary spread across the lot in a way considered a practical means of recovering it. The classification into which this scrap loss is placed is not important. There is no definite rule. If it is a very heavy element it might be a cost all by itself. That is true of some processes. You can start off with a casting and you do not find the error until you have machined it or galvanized it, and there will be essentially and necessarily a very heavy loss, running maybe 20 or 30 per cent of the items. We will set that up as a specific cost arising at that particular point where the error is likely to occur and treat it as such.

In very light castings we will have as a cost element the inevitable scrap loss. Whether you want to call it overhead or direct charges or anything else isn't important. We will consider it as an item of cost, and in our breakdowns of cost we are not particularly concerned with accounting classifications. We have costs that can be directly and precisely applied, costs that can be applied on some very reasonable apportionment basis, and other costs which are just a matter of arbitrarily charging, and which particular thing falls into the category depends upon the manner and the accuracy with which you can make that distinction rather than some accounting term.

Chairman Jackman: I think that Mr. McAnly would like to comment on this question.

Mr. McAnly: I would say that if in your costs you carry scrap losses that occur in the shop as department overhead, then I would class scrap as it occurred as overhead. It does have a distinct value. It shows up as an item of controllable cost, departmentally, when you set up your picture to present to the foreman who has charge.

Chairman Jackman: This next question is directed to Mr. Greer by Otto Seebach of the Bausch & Lomb Optical Company, Rochester, N. Y. "In your talk this morning you indicated that interest charges were not an element of cost. If your normal loans are between half a million and a million dollars and due to war contracts you obtain a V-Loan for a considerable larger amount, do you not think that the excess interest charges now become a cost item?"

Mr. Greer: No! It seems to me more proper to assume that the interest on any money that you have borrowed is something which has to be covered out of what I called this morning the "earnings" of the business, than to say that your "costs" increased because you had to borrow more money to run the business.

This, of course, is almost entirely a matter of terminology. It is all a question of what you are going to call these things, and how you are going to look at them.

Obviously, the interest on the money you borrow cannot be ignored in the operation of your business. It must be considered in the setting of the prices and in calculating the amount that you have to have left to cover the various "deductions" which must be made before stockholders get their return. I do not agree, however, that where you get your money has anything to do with what it "costs" you to turn out your products.

Let's turn the question around. If Company A borrowed all the money necessary to do the job, and Company B obtained all the money by increasing its capital stock or diverting to this activity capital which it had available from other sources, would the cost of the products of one of those companies be greater than the cost of the products of the other one? In my conception of the proper use of terms—and it is nothing more than that—the answer to that question is "No." The difference is in the distribution of the earnings, not in the costs. I think we will be on sounder grounds if we revise

our terminology to exclude interest from costs, and to recognize a distinction between the earnings of the business and their distribution in the form of interest, or income taxes, or dividends, or whatever it may be.

CHAIRMAN JACKMAN: Our next question is directed to Mr. Perry. "Have you any further summary comment that you would like to make with respect to what the forward-looking cost accountant must do to add to the prestige of his profession?"

MR. PERRY: I think that it would take quite a lot of time to give a broad, complete answer. Certainly, we have an opportunity in cost accounting. We need to study and to understand some of these new ideas that have been discussed today and others that will be mentioned in the months to come in our publications.

We cost accountants must have a broad concept of the new era of business, the new responsibilities of business, and we want to be sure that our cost accounting work fits into them. I think that as individuals we must try to broaden the scope of our vision. We should understand the policies of our management, but not make the policies for them. We should not always make costs solely to meet these policies; preferably we should present as best we can an adequate picture. It may do other things with them, but usually management wants to know the facts.

In the field of cost accounting we as a group have some responsibilities for advancement of the profession generally. There has been comment appearing in some other professional papers suggesting establishment of cost accounting principles. This is a matter which may be forced upon us as an Association to undertake, else we may find that someone else will try to do the job for us.

There is a real future in cost accounting if we think, plan, and act to promote the profession

CHAIRMAN JACKMAN: Gentlemen, I still have a large number of questions, and we sincerely regret that time does not permit their answer.

I should like on behalf of our Program Committee to extend a vote of thanks to our speakers of the day and our members of the panel. The meeting is adjourned.

. . . The session adjourned at four o'clock . . .

SESSION V

POSTWAR PROPERTY ACCOUNTING

WEDNESDAY MORNING, JUNE 28, 1944

EUGENE J. KEMPF, Assistant to the Controller,
S. S. Kresge Company, Detroit, Mich., *Chairman*

Robert J. Landolt is Controller of two corporations—the Girdler Corporation and Tube Turns, both of Louisville. Born and educated in Louisville, his early business experience was in railroading in clerical, accounting, and valuation capacities. He is a member of the Louisville Chapter of N. A. C. A., a Director of the Louisville Control of the Controllers Institute, and a member of the National Office Managers Association and the Louisville Personnel Association.

William Y. Armstrong is Cleveland District Manager of The American Appraisal Company, with which he has been associated since his graduation in Chemical Engineering from the University of Illinois in 1922. He is a Registered Professional Engineer in Ohio. Active in the management of the Cleveland Chapter for the past ten years, he recently completed his term as President of the Chapter.

Paul C. Conrad is Assistant Cashier and Loan Officer of the National Bank of Detroit. A native of Indiana and a graduate of the University of Detroit in Accounting, Mr. Conrad has been employed in banking for the past 20 years, the last 11 with his present company. He is a member of the Detroit Chapter of N. A. C. A.

Palmer W. Hancock is General Cost Auditor of the Owens-Illinois Glass Company of Toledo, having been in the employ of this Company and its predecessor, the Illinois Glass Company, since his graduation from Washington University, St. Louis, in 1924. Mr. Hancock has been active in the management of the Toledo Chapter, which he served as President in 1942-43. At the Conference he was elected to a three-year term as National Director.

Harold W. Scott is Resident Partner of Haskins & Sells in Detroit, having been with this firm since shortly after his graduation from the University of Michigan in 1922. He has been active in the management of the Detroit Chapter of N. A. C. A., which he served as President in 1941-42. Two years earlier he served as President of the Michigan Association of Certified Public Accountants. Mr. Scott is presently a member of the Council of the American Institute of Accountants.

POSTWAR PROPERTY ACCOUNTING

CHAIRMAN MONROE: To borrow one of Colonel Downie's expressions, we are on our last lap. After observing and participating in some of the festivities last night, it might be more appropriate to say that we are on our last long mile.

Our first day's session was devoted to what is probably our most important problem of the moment, "Termination of War Contracts." On our second day we looked a little further ahead to cost accounting in a competitive economy. Today in a sense we are backtracking a little to discuss the subject of unscrambling fixed assets after the war. We hope the start of this is fairly imminent, but we also know that the process may cover a long period of time.

It may be of interest to you to know that when the Program Committee was first discussing today's subject, we selected an entirely unrelated one with the somewhat intriguing title, "Different Costs for Different Purposes." However, at the last minute when we submitted the tentative program to the Board of Directors, current Chapter Presidents, and members of the Spot Club, today's subject was added as an alternative one to that previously mentioned. We asked that those receiving this tentative program indicate their preference for one of the two. Somewhat to our surprise, the vote was 2 to 1 in favor of today's subject—"Unscrambling Property Accounting After the War."

Our Chairman for today, Eugene J. Kempf, is a man well known throughout the Association. He is a Past President of the Detroit Chapter, he has been a National Director, and yesterday he was re-elected to the Board. Gene at the present time is Assistant to the Controller of S. S. Kresge Company, although his twenty-five years' experience has been almost entirely with the automotive or allied industries in a general or cost accounting capacity. I am quite happy at this time to turn the program over to Mr. Kempf.

CHAIRMAN KEMPF: We open the final technical session of this conference, and I want to say with an appropriate degree of modesty that we of this Wednesday session had planned to give you a program

excelling all others before us. However, after listening to the excellent papers which have been delivered here in the last two days, our only desire now is to attempt to maintain the standard of excellence which has been established.

This being a streamlined, wartime session this morning, designed to give you a day's program in just a morning, we will not waste any time with any further opening remarks.

Our speaker of the morning, Robert J. Landolt, Controller of The Girdler Corporation and Tube Turns of Louisville, Kentucky, is new to all of us as a speaker. In the past, you have had many prominent controllers speak to you on national and chapter programs, but we want you particularly to note that we are offering you a "special," sort of a Wednesday special. I think I should inject that idea into this program, since I am now well qualified as a merchandiser, having been in the merchandising field for practically six weeks, so I know something about Wednesday specials. In addition, this morning's program is an all-member program. Everyone here on the program is a member of N.A.C.A.

Mr. Landolt is the Controller, not of one corporation, but of two! He was born in Louisville and has lived there all of his life. He attended the University of Louisville. He is a member of the Louisville Chapter of the N.A.C.A., a director of the Louisville Control of the Controllers' Institute, and he is also affiliated with the National Office Managers' Association, and the Louisville Personnel Association. He will now speak to you on the subject of "Unscrambling Property Accounting After the War." I am pleased to present Robert J. Landolt.

UNSCRAMBLING PROPERTY ACCOUNTING AFTER THE WAR

Robert J. Landolt

Controller, The Girdler Corporation and Tube Turns,
Louisville, Ky.

Mr. Kempf said that I am a new speaker to an N.A.C.A. audience. He might have said that I am a new speaker in so far as my own activities are concerned. This is my maiden attempt on the rostrum. I hope that his reference to bargain day may not be

prophetic. I am inclined to think that most people who look for bargains get stung. I hope this is going to be a reversal of form.

To most of us looking into the postwar period is like going to a fortune teller or consulting a ouija board or a crystal ball. I come from Louisville where some people like to play the horses. They would like nothing better than to read tomorrow's paper today, get the results, and bet on the horses today. Some people go to fortune tellers, some consult ouija boards, some go to astrologers, and some come to the International Cost Conference to listen to people like me.

Importance of Property Accounting

One of the basic problems confronting accountants today is what to do in preparation for tomorrow. That problem is particularly pertinent with respect to property and its effect on the balance sheet and profit and loss statement. While our companies may be in the excess profits tax brackets—making lots of money and paying most of it to the Government in taxes—we are going to be pleased if we can come through this war and transition period with sound prospects for the future and a plant equipped to enable us to compete in tomorrow's markets.

Today most of the companies represented here have the Government as a partner with either a direct or indirect interest in practically everything which is done. The Government, through DPC, RFC, and other agencies, has provided equipment or financed equipment for use in the furtherance of the war effort. Considerable accounting and management, with innumerable complexities, will be involved in making the segregation, in accounting to the Government for that which is theirs, and in making certain that we get that which is ours. In getting that which is ours we must see that it is worth something to us for the operations of tomorrow.

Uncertainties Make Planning Difficult

One of the greatest obstacles to planning is that nobody knows whether war production will be allowed to taper off gradually, or whether there will be an abrupt stopping of production. Whether the change-over is to be abrupt or gradual is something we would all like to know. Probably even the government people do not know. To use a favorite term of one of my associates, they might be called "apostles of expediency." They must be prepared to jump in whatever direction and at whatever time changing conditions make such

action necessary. That means that we cannot plan in advance exactly where we are going to jump and where we are going to land.

This is somewhat akin to the experience of going down steps at night and not being certain whether there is another step to put your foot on. You have a strange sensation when you are about to put your foot down and then suddenly you feel that there is no step there. That is an unpleasant experience, and I think we are headed for something a little like that.

It is rather tough after straining all of our energies for all-out war production to the exclusion of everything else, to be faced suddenly with an abrupt ending of war production with the attendant problems involved in divorcing our companies from wartime production and putting them back into peacetime occupations, especially when we cannot be certain of where we stand and what is going to happen.

What I am going to do this morning is to discuss some of my experiences in the field of property accounting and give you some of my ideas on the subject. To the extent that these may provoke you to thought or contribute something to what you know on the subject, I will feel that I have accomplished a little something. First, I would like to give you a little background information regarding the two companies with which I am connected, so that you can better understand some of the things that I am going to talk about.

Tube Turns

Tube Turns was engaged in the production of welded pipe fittings prior to the war. Production involved a patented forging process using patented equipment. Ours is one of the four companies making this product. Prior to Pearl Harbor, when France and England were buying huge supplies of everything in this country, we began the production of shells. The Ordnance Department assumed that we knew something about forgings.

At that time we felt the necessity of this country arming itself for defense and of assisting our present allies in whatever way was possible. Our company committed itself to some million dollars worth of expenditures, which for a small outfit like ours is real money. We ordered equipment for which we had no orders or the slightest idea of what we would produce, when we would produce it, or for whom it would be produced. That was quite a gamble on our part, but it was based on the policy, which has been adhered

to since, that we were going to contribute whatever we could to winning the war or helping our allies win it. We weren't motivated by the idea of making big profits, but we did want to survive the war period and come out of it with an organization capable of carrying on after the war and competing in peacetime markets. Naturally, we did not want to lose money, but we weren't concerned with making money.

As a result of this early expansion of facilities we got into war production somewhat earlier than most companies, and with just a little different viewpoint.

The Girdler Corporation

The second company with which I am associated, The Girdler Corporation, has three activities conducted by separate divisions. One division deals with the refining and purchasing of gases, both refinery and natural. A second division produces patented diesel equipment which is used by practically all of the manufacturers of oleomargerine and lard in this country. At present it is also used for the production of such wartime products as synthetic gasoline, synthetic rubber, chemicals of various sorts, and similar products. The third division, acquired about two years ago, is engaged in the manufacture of electronic steel. This is what we call our thermix division. It manufactures a dielectric heating apparatus which is used in the high frequency field mainly in the production of plywoods and plastics. These are used mainly at the present time in the production of airplane propeller blades, plastic steering wheels for PT boats, and similar products.

War Production Made Adequate Accounting Difficult

Like many other companies we have greatly expanded our facilities during the war. Some equipment has been provided through the Defense Plant Corporation, some has been supplied by the Ordnance Department and other agencies through RFC, and a considerable amount has been acquired at our own expense. This expansion took place during a period when the thing that was urgent was to get a production job done. No one was concerned about what you did in the way of accounting. The main thing wanted was production. The finest property records ever made could not be fired across seventeen miles of water to bombard and reduce a fort. They wanted guns, ammunition, shells, planes, tanks, ships, and that was

what industry was told to produce. The maintenance of adequate records was left to industry as a secondary matter.

In our particular case, I was admonished not to interfere in any way, shape, or fashion with our production department, but to hire a lot of detectives, if necessary, to shadow the men around the plant and find out what they did, making such records as I could from that. With certain modifications, that is what we did, because we were out to produce, and accounting was merely a sideline to that issue.

The Leveling-Off Period Has Been Reached

We have now reached what I call a leveling-off period. For quite a while everybody was expanding. You were given new jobs to do, new lines to produce, new equipment to put into your plant, and you were expanding your personnel. You were opening up new plants here, there, and elsewhere. I think most of that period of expansion is now over and that you are now pretty much at your peak, your maximum in the way of production. You probably have most of the personnel that you will have; perhaps you have lost some of those you had earlier. You have had to train a lot of green help, but such personnel as you have trained you have probably gotten pretty well trained to do a job. Most of your men who are available or subject to the draft have been called. Those who are left have been with you some little time now. They have assimilated some of your policies, some of your know-how, some of your technique, and they are able to do the kind of job for you that is just now beginning to produce results in accounting departments.

I have talked to a number of controllers in the last year, and most of them tell me that up until about six or eight months ago it was extremely difficult for them to do anything in the way of accounting. There were constant changes. They would hardly get started on one thing when a contract would be canceled or a new line thrown into the plant. They were opening up new departments, and they were losing their personnel. There was constant turnover, change, and turmoil, and they just couldn't get anything accomplished that satisfied them at all. In the last six months that picture has undergone a change, and from the accountant's standpoint a change for the better.

That means that we are just now beginning to be able to do the kind of job in the accounting department that we need to do to main-

tain proper records, to produce good balance sheets and operating statements something a little less than a month or two late, to maintain property records, and carry on all other activities normally associated with an accounting department.

Present Opportunity for Improving Property Records

Many of you, particularly those with the smaller companies, probably started out during this war period without adequate records. Probably you had nothing but a general ledger account to which was charged the cost of your fixed assets and a reserve account to which you credited your periodic depreciation. You had no details—no subsidiary records to tell you what was in your property account. You knew the total dollar value, but you could not tell for the life of you whether you had one lathe or two or ten, whether you had one grinder or one forging machine, whether you had one boring mill or whatever the unit of equipment might be. You had land, factory buildings, office buildings, and office equipment, but how many of you knew just exactly how many desks, chairs, typewriters, and adding machines were included in your totals? If anyone asked you how many you had of these various items, you had to take an inventory.

We have had our hands full just taking inventories of raw material, work in process, and finished goods. I think I can speak for quite a number of people when I say that there has been very little done in the last year or two in the way of taking inventories of fixed assets. That is a job that we pushed off into the future when conditions, time, and help would permit doing a better job. We knew it was necessary but we had to postpone it for a better day. I say to you that that better day is here now, or it had better be here now, because if it isn't you are going to have difficulties in the days to come.

Different Types of Property Require Different Records

For record purposes we need to recognize several types of plant and equipment. You have your wholly-owned plant and equipment, that is, plant and equipment which is owned by your company. That is divided into two groups, (1) normal equipment and (2) equipment covered by certificates of necessity. Your normal equipment is being depreciated at either normal depreciation rates or at accelerated rates, depending on the circumstances. On the other hand

you are probably amortizing the equipment covered by certificates of necessity over a five-year period.

In addition to your privately-owned plant you have government equipment. That has been acquired through purchases covered by RFC loans; it has been provided by the use of funds made available through DPC, or through some branch of the Services; or the Army, Navy, or the Maritime Commission have loaned to you or leased to you equipment which they owned for your use on specific contracts.

DPC Property

This has meant that you have had to keep a number of different types of records. Your DPC equipment, for example, is covered by a lease, on which you pay a certain rental. At the time you signed the lease and acquired the equipment, you were given an option to buy this equipment from the Government when the war is over at its then book value. If you are not willing to buy it on that basis, you may bid for it on a competitive basis.

I think that in most cases the company in whose plant the equipment is located has a distinct advantage over other prospective purchasers. If somebody else buys the equipment they will have to move it, construct new foundations, hook it up to their power lines, and install various facilities, such as water lines, air lines, sewers, etc. It cannot possibly have as much value to them as it is likely to have to the present user. But at this time you do not know whether you want that equipment or not. You do not know what your position is going to be after the war. But you are certainly interested in knowing what the value of that equipment is going to be, item by item and unit by unit, so that when, as, and if the time comes that you may want to acquire the equipment you will know the basis on which it can be acquired and whether or not that basis is favorable to you. When I say "favorable to you" I mean that you want to be able to buy it at a price which will be less than what you can acquire it from the machine tool industry.

Government-Owned Equipment

In the case of equipment furnished by the Armed Services, the Government paid the freight on the equipment to our plant, after which we paid for unloading and for setting it in place, constructed the foundation, installed the electrical wiring, and furnished whatever

other utilities were necessary for the functioning of the equipment. The accounting for those expenses has been handled in one of two ways. If you had a short-term lease of a year or a contract that you expect to consummate in a year, you charged off such costs to expenses. If you had a long-term lease, one for the duration of the war or beyond a year, and the lease was determinable as to time, you amortized the cost over the period of the lease or whatever period the contract had to run. That meant that at times you have had an asset value on your books that you were writing off to expenses and adding to your cost of production. At the time this equipment is to be returned to the branch of the service that owns it, you should have no further investment on your books.

Certificates of Necessity

Perhaps most of the companies represented here have acquired equipment in the last couple of years under certificates of necessity. That was a safe thing to do because a lot of us have probably over-expanded ourselves as to plant equipment, at least beyond the point that we thought was safe as far as our postwar production was concerned. We did not want to be caught when the war is over with a huge investment in idle plant and equipment. We availed ourselves of the opportunity that the Government offered of securing certificates of necessity so that the plant and equipment could be written off either during the period of the war or in five years, whichever is the shorter.

In the two companies with which I am associated we expanded our plant and equipment without any certificates of necessity whatever. All of our buildings and lands are privately owned. The Government has furnished machine tools to us, but nothing else. We were a little afraid in the early days that there might be some entanglements tied up with the acquisition of property covered by certificates of necessity. We wanted to be free to operate and to use our plants and equipment in whatever way we saw fit—in whatever way we thought would work out to our best advantage—without the Government having any voice in what we might or might not be permitted to do with it.

I think that fear probably was not well founded. I don't know how many of you may think that it was, but we no longer feel that way. However, at the outset we did, and we acquired all of our plant and all of our equipment through the expenditure of our

private funds without securing certificates of necessity. That means that as far as we are personally concerned we are probably at some disadvantage in competing with those companies which for the most part financed their expansion in machine tools, plant, and other facilities through certificates of necessity. I might say that I doubt that that will be any serious factor for us in the postwar period, and I believe that if we had to do it over again we would probably do the same thing.

We wanted to make our contribution free from any entanglements. We wanted to make it in the way that our judgment indicated would be best for us. That judgment may have been sound or it may have been bad. Time alone will tell that, but that is the gamble we took. Coming from Kentucky, there is probably a little bit of the gambling element in most of us.

Property Records for Insurance Purposes

One of the vital uses of property records—and this is particularly true right now—is for insurance purposes. I expect that at the beginning of the war most of us had some recollection of the sabotage that went on during the last war. A lot of people took out war risk insurance and covered their plants with every type of insurance that was offered. Fortunately as of today sabotage has proved to be a very minor factor in this country. I don't know the figures, but I assume that they are infinitesimally small. I think most of us today still carry practically everything in the way of insurance that we can get, except possibly war risk insurance, which has declined considerably.

Also, during this period we probably have installed all the measures that we considered adequate for protection against fire. In addition, all of us doing war work have had to install plant protection, guards and systems of identification, badges and photographs, fingerprints, and all of the things that are considered necessary by the Armed Forces for the protection of plants producing war items.

If you have an insurance claim in case of fire, plant explosion, or any other occurrence that involves loss of property, you may take quite a while to file your claim, because you have to determine from your records what was destroyed and its insured value. When you present your claims to the insurance companies you expect them to honor them. If you do not have adequate records, your claim is not going to be passed without a lot of questioning and changes, all of

which are likely to be reductions. From that angle alone you probably could have paid the cost of setting up adequate records. The amount of money spent for personnel and machine equipment to enable you to set up adequate property records would have been recouped out of the proceeds from claims on insurance companies.

Periodic Plant Inventories

It is well at any time, and particularly so today, to make periodic inventories of your plant facilities. Human nature is pretty much the same everywhere. Your plant personnel for some reason or other seem always to feel that they can do a better job without the white collar workers from the office. If you will just leave them alone, they will turn out the production, they will do the job, and they don't need your help. They will scrap jigs, dies, tools, and fixtures; build tables, benches, and racks; and even construct machine tools, small saws or lathes, or this, that, or the other out of finished parts, repair parts, or raw material. You will not know about it in a lot of cases. That has always been the case, and it always will be the case. You may have the finest records anybody can have, and when you go into your plant you expect to find so many items of this, that, and the other. Some of them are gone. You inquire about them and nobody seems to know what has happened. They haven't seen that tool in quite some time. You ask the foreman. "Well, I don't know. It wasn't here when I came in." He may be a new foreman who has come on the job in the last six months or so. But you just simply don't find the tool in its proper place, properly tagged, marked, and identified so it can be checked with your property records. It is foolish to expect that you are ever going to have a situation where you will find everything.

In addition to the things that are missing, you will find machine tools and various items of property that are not covered by your record. For the most part they are homemade or do not have much value. You may not want to include them on your balance sheet, but whether you do or not, they are part of the assets of the company on which the management is charged by its stockholders with earning a return. You ought to know about them and you ought to have a record of them, because if you do not they can be lost or stolen or otherwise disappear. This may affect your production record and the return that you earn on your investment. Manage-

ment is charged with earning a return on investment, and in the main this investment is in plant and equipment.

Property Records and Termination

You listened Monday to talks on termination procedure. One of the things that is very important today is the necessity of tagging, marking, and segregating dies, tools, jigs, fixtures, and inventory where they form part of the charges on canceled contracts. You include these assets in your claim at book values, and when an audit is made you are required to produce the property which is represented by the charges on your statements. I am satisfied that in all too many cases when you go down to the plant to find those items some of them are going to be missing. We have had that experience in our plant. We have had cancellations. We have tagged the tools, dies, jigs, fixtures, raw inventory, and parts in process, as well as the finished parts. We have segregated them, laid them aside, and put signs on them saying, "Do not touch." We put the contract number and the fact that the order was canceled on the tag. We thought we had everything under control. But when the audit was made, and we went down to the plant to check the physical property represented by the claim we found some of it missing. That meant that we had to amend our claim, resulting in delay in processing it and in reaching final settlement. This illustrates as well as anything I can tell you the necessity of seeing that you have adequate property records and that you have somebody constantly checking up to make certain that the property that you are recording is still there, that it is still tagged, marked, segregated, and under control. You will have some difficulty, but it is going to pay you to make your very best effort.

Equipment Records and War Work

Another reason why it is desirable to have good records of what facilities and tools you have available in your plant is that the Army, Navy, Maritime Commission, and Army Air Forces are constantly seeking industries that have the necessary equipment available for the production of products needed by them. In the last year I expect that we have taken off no less than one dozen listings of the items of equipment in our plant that were available for production. When I say "available for production," I do not mean equipment which is idle, but rather all equipment in the plant. The Armed

Forces want to know whether you are capable and have the tools and the personnel to manufacture a particular item that they want produced. First of all they want to know whether you have the equipment, and if you have the equipment, whether you have the know-how. On file in Washington and in the regional offices throughout the country are surveys of most, if not all, of the plants of the country. The better the detail that you are able to give, the better your chances, if you are interested, of securing contracts that will enable you to use those facilities for furtherance of the war effort. I might add that where you have millions of dollars tied up in plant and equipment without adequate records, it is no small job to set about taking an inventory for this purpose.

Property Losses for Tax Purposes

If you are carrying on your balance sheet a considerable investment in plant and equipment that an inventory or survey will show to be non-existent, you may be losing the opportunity to write off such loss against income during a period of high excess-profits taxes. That is very important. Under the present tax law it is true that we have the two-year carry-forward and the two-year carry-back provisions, but nobody is prepared to guarantee that these provisions as they now stand will exist for any great period of time. If we have losses in plant equipment that we can determine, now is the time to write them off. Don't wait until tomorrow, because tomorrow you may be writing them off at a time when you have no profits and under a tax law under which you may not be able to avail yourself of the present carry-back provision to get a refund on the excess-profits taxes that you have paid in the past.

Preparing for Acquisition of Government-Owned Equipment

I think that a good many of us are beginning to make plans with respect to postwar facilities. We would like to know on what basis we can secure some or all of the equipment that has been put into our plant and financed by the Government and over which we now have control. I think most of us realize that the machine tool industry has hit a slack period. They probably had more demands made on them than any other branch of industry in the early days of the war. They met those demands well. They expanded and produced the tools that we are now using to furnish the sinews of war, but the tools had to be furnished before production could begin.

Now that production has pretty well hit its peak, the machine tool industry has probably hit a bottom for wartime work. After the war they are going to be beating the bushes, looking for business, and you are going to be able to buy machine tools on more favorable terms than today with prompt delivery assured.

Accordingly, you would like to know whether or not you can buy any given machine tool from the machine tool industry at a price that will compare favorably with that at which you can procure the government property that is now on your premises. That is a difficult comparison to make, for you do not know whether you are going to be able to acquire that property at its depreciated book value or on some bid basis, and if you have to bid for it, you have no idea whether your bid is going to be low, high, or in the middle. So it is difficult to judge just what the cost to you is likely to be where you are able to secure acquisition of the tools that you want. You are in a better position to judge your prospects of securing the desired results if you have records that will tell you what the property is worth to the Government, the maximum that you are likely to have to pay for it, and then consider whether you are willing to pay that much.

An important feature of your records of government property, particularly machine tools, is a record of accessory parts and devices. Included in the cost of a lathe, for example, may be the cost of a lot of jigs, fixtures, special cutting tools, and spare parts of one type or another. Most of these will have little, if any, value to you after the war. When we get back to peacetime production you will not be concerned with these special jigs and fixtures at all. You don't want to acquire them. If your records are not set up properly, you may simply have a lump-sum figure that shows the cost of that machine tool, including all of these fixtures. You need to have your records so set up that the jigs, fixtures, and special items are not part of the total cost of the particular tool.

Property Records for V and VT Loans

One of the purposes for which property records are required today is in application for Regulation V and Regulation VT loans. Industry in general has availed itself of the opportunity which the Government has provided for obtaining current funds through the difficult postwar era when you may have a lot of cancellation charges and termination claims. Your receivables may be slow in liquidating, and

you may have huge inventories which you may not be able to liquidate except over an extended period. So most of industry has availed itself of the opportunity and secured financing through Regulation V or VT loans.

In securing such loans you are required among other things to furnish a current balance sheet and profit and loss statement, together with a balance sheet, profit and loss statement, and cash budgets projected a year in advance. Under the provisions of the agreement, you are likely to be limited in the amount of money that you may spend for fixed assets within any given period of time from the date when the VT-loan funds are made available. You are required to keep the banks currently informed of any significant change in your balance sheet and particularly in your government contracts, and you are required to maintain a stated minimum working capital.

Those things tie in directly with what you do about your fixed assets, because one of the things that most of you are probably doing now is taking an accelerated rate of depreciation on the normal property not covered by certificates of necessity. In a number of cases your income tax returns have not been examined for two years back. Your accelerated rate of depreciation has not yet been passed upon by the Bureau of Internal Revenue, and you do not know whether or not it is going to stand. It may stand in part, if not in whole. You may find it necessary to increase your surplus account and your tax reserves, and to decrease your depreciation allowance and thereby to increase your net fixed assets. When you do that you are going to decrease your net working capital. Your only protection against such a condition is to set up a tax reserve that you consider adequate to take care of any disallowance of depreciation, whether it be accelerated or normal.

Depreciation and Taxes

There are so many angles involved in what is considered an adequate tax reserve that you are never certain whether you are going to be fully covered or not. For that reason you will want to have the best records you know how to procure—records that will show on what basis you depreciated your property, and what your reasons were. You will want to have something to sustain the stand that you have taken and be prepared to argue it out, because I am telling you that when the revenue agent comes around he is not going to look at your depreciation claim in your tax return and say that is o.k. The

chances are 100 to 1 that he is going to argue with you from now on, and the net result will probably be a reduction of the claim that you put in your income tax return for depreciation.

I might add in that connection that one of the things that will tie in with the disallowance of depreciation, if any, will be the effect it will have on your postwar refund of excess profits taxes. I think most of you are including that refund in profit and loss carried to surplus. That is based on what your earnings statement show after the depreciation that you have claimed on an accelerated basis. To whatever extent you find it necessary to adjust your earnings statement, you will find it necessary to adjust your postwar claim for refund of excess profits taxes.

Other Uses of Property Records

Property records are also involved in contract renegotiation. Renegotiations for 1942 have been largely concluded. Many companies have been renegotiated for the year 1943, and many are setting up a reserve which will be adequate for the year 1943. You cannot do that with any degree of accuracy unless you know what is involved in the way of profit and loss resulting from the use of fixed assets.

In the postwar period you are going to have the problem of determining what amount of depreciation to include in cost of production. You will come to the end of this period with property either fully depreciated or written down to a point where it does not have much value. If you are to establish prices based on these reduced costs or wholly depreciated properties, you are likely to run into future difficulties. There are too many discussions of this problem in the *N. A. C. A. Bulletins* and other publications for me to need to go into detail, but it certainly is something to think about.

Adequate Records for Flexible Planning

I started off by telling you that we would all like to look into crystal balls or have fortune tellers tell us something about the postwar period, and that is going to hold true after you leave here. It is going to hold true for some time to come, because we just cannot possibly tell what is going to happen. The best we can hope to do is to put our affairs in such order that regardless of what develops we will be best able to meet any situation.

You cannot do that by laying the most definite and minute plans and predicating your course on a given set of circumstances which

are going to obtain, because the chances are that you are not going to guess right. Assume that to be the case, your only recourse is so to prepare that whatever the circumstances are and whichever way the cat jumps, you will be ready to jump with it. You can only be prepared if you are not tied down with impediments that are the result of bad housekeeping and disorderly accounting. That is particularly true with regard to accounting for your fixed assets. We want to make certain that we have the necessary information at hand to enable us to make intelligent decisions to do whatever job faces us at the time when this war period swings over to peacetime, and we then are called upon to forget the objective of today, which is to win the war first, and to get back to the point where we are looking forward to peacetime occupations, peacetime profits, and peacetime control. We do want to foresee a time in the future when we will be able to make decisions that have to do with the use of our property to earn a return for our stockholders without government directives and interference, and we can do that only if we are well armed with information.

CHAIRMAN KEMPF: Thank you, Mr. Landolt, for a very fine address. Mr. Landolt used the illustration of going down steps in the dark. I think that many of us probably felt just that way this morning in broad daylight.

PANEL DISCUSSION

CHAIRMAN KEMPF: We are now ready to go into the discussion period, and it is my pleasure first of all to introduce to you the other members of our panel. I am going to ask the members of the panel to kindly rise and take a little bow as their names are called.

The first member is William Y. Armstrong, District Manager of the American Appraisal Company of Cleveland. Mr. Armstrong has been a member of N. A. C. A. since 1929 and is an immediate Past President of the Cleveland Chapter.

Our next panel member is Paul C. Conrad, Assistant Cashier and Loan Officer of the National Bank of Detroit.

Next we have Palmer W. Hancock, General Cost Auditor of the Owens-Illinois Glass Company, a Past President of the Toledo Chapter, who just yesterday was elected a National Director of our Association.

The last member of the panel is Harold W. Scott, Resident Partner of the firm of Haskins & Sells of Detroit. Mr. Scott is a Past President of the Detroit Chapter of N. A. C. A., and a Past President of the Michigan Association of Certified Public Accountants. He is at present a member of the Council of the American Institute of Accountants.

We shall carry out pretty much the same procedure as was carried out on the first and second day and address our questions as much as possible directly to one of the members of the panel.

Our first question is for Mr. Landolt. "Do you think it is advisable to maintain a property record to show the regular depreciation reserves on facilities covered by certificates of necessity?" The question is from W. J. Wemple of Peoria.

MR. LANDOLT: First of all, I am going to have to assume that under the certificate of necessity you have elected to amortize the property over a five-year period of time. I think it is well, in any event, to keep your property records so that they reflect all the facts and show the depreciation reserve you have set up. That is either amortization at 20 per cent, or regular depreciation if you have so elected and have reserved the option to apply amortization later. If you use the 20 per cent rate and the war ends before the asset has been fully written off, it will be necessary to make the adjustment in your record, and your tax return, of course, will have to be reopened to allow for the additional write-off.

I would say, by all means keep your property records so that they do reflect all of your facts. You can hardly get too many facts. Such a thing as keeping more detail in your property record than you need is something that I have yet to hear of.

CHAIRMAN KEMPF: The next question will be addressed jointly to Messrs. Scott and Hancock. "Assuming that a company acquires certain facilities from the Government at the end of the war at 50 per cent of their original cost, how should they be carried for financial statement purposes and on what bases should depreciation be set up for pricing postwar products?" This question comes from S. M. Bender of Toledo.

MR. SCOTT: It seems to me that if the facility is purchased at 50 per cent of its original cost it may have been purchased under an

optional clause of a DPC contract or a government contract of another type. Usually the option prices are established on the basis of selling the property at the termination of the period at a price which will reasonably measure the original cost less the deterioration. Under those circumstances, it seems to me that for financial statement presentation purposes the property should be set up on the books at cost.

MR. HANCOCK: With regard to the second part of the question, a number of speakers at the earlier sessions have touched on depreciation as a factor in pricing. I am not sure that I am in complete agreement with them. The problem may vary with different types of industries, but I think that, in determining the selling price, or the estimated cost as a basis for the selling price, replacement value of the equipment should be used. You will recall that yesterday Mr. Howell mentioned that in some instances equipment might be acquired for as little as fifteen cents on the dollar and the selling price might be so predicated, and that competitors who were not in such a fortunate situation and who chose not to follow that lead might find themselves in difficulty. I think they might find themselves in difficulty if they entirely ignored the fact that their equipment had cost them more, just as I think the price cutters might find themselves in difficulty when they came to replace their equipment and then find themselves faced with increased fixed charges.

Again, I say, I think the answer may depend to some extent upon the industry. In my opinion, there are three main industry types—those such as Mr. Greer's industry, the meat packing industry, which are producing essentially the same product that they did in peacetime, but in greatly increased quantities; those such as Mr. Landolt's Tube Turns that are using essentially the same type of operation to produce a different product; and those industries that have entered a wholly different field, both as to operation and product.

CHAIRMAN KEMPF: The next question is addressed to Mr. Armstrong by C. W. Campbell. "Should retooling charges for converting equipment from war production to peacetime production be capitalized where (a) the equipment is owned by DPC and (b) the equipment is owned by the company?"

MR. ARMSTRONG: I think that you should approach the treatment of tooling costs with certain principles in mind. You should

ask yourself: Are the facilities that are going to be bought going to have a longer life than, let's say, one year? Can you identify them six months from now, or will they be lost in the tool room or become a part of the general facilities of the plant?

I think that many lessee operators who have acquired tooling along with their machinery on DPC properties regret very much having done so, because they have a responsibility under their DPC lease agreements to identify and control all facilities at all times. They have found it impossible to do that with such things as tooling.

As far as private industry is concerned, they can do anything they want as far as their responsibility is concerned, but the consideration which should dictate their policy, it seems to me, is whether the facilities are subject to control or whether they are going to be used up in the manufacturing processes? I think that is the question that must be decided first.

Chairman Kempf: Here is a question for Mr. Scott from R. H. Crowell of Washington, D. C. "Please outline the various options available with respect to amortization under a certificate of necessity."

Mr. Scott: The emergency period, of course, can be ended by presidential proclamation, at which time the taxpayer who has certificates of necessity and is amortizing facilities over the five-year period may go back and shorten the life to a period beginning with the original beginning of the period and ending with the end of the month following the proclamation. The second method is by certification by the Secretary of the Navy or the Secretary of War that the facilities are no longer needed in the interest of national defense, in which case the same treatment can be accorded to facilities that are being amortized.

In cases of facilities on which certificates of necessity were obtained but the taxpayer did not elect to amortize such facilities, it is my understanding that even though normal depreciation has been taken the taxpayers can still elect to go back and amortize those facilities over the shorter period, for example, over a three-year period. In the case where a taxpayer has elected to take amortization and has taken it for a year or two and then has discontinued amortization by notice to the Commissioner of Internal Revenue, the taxpayer also has the privilege of going back and using the shorter period.

Chairman Kempf: Here is a question for Mr. Landolt from F. H. Emery of Colorado Springs. "Our company has in most cases used a depreciation rate of 200 per cent of normal to cover three-shift operations, rather than leaning on necessity certificates. Do you think this method will be questioned very seriously by the Internal Revenue boys?"

Mr. Landolt: Very definitely. I think I mentioned in my talk that you had better be prepared to fight it out with the revenue agents, because they will most certainly question whatever you may use as an accelerated rate of depreciation. I think if you can support your rate by the proper records, such data as plant life and wear and tear on your equipment, the amount of maintenance that it is possible to give to it, and the skill or lack of skill on the part of the operators—which has a lot to do with the usage of the equipment—you have a much better chance of making any accelerated rate stick in your income tax returns than you would have where you just merely assume that since you are operating on a three-shift basis you ought to be able to double your normal rate of depreciation.

I would say that you are certainly going to have a fight, but the man who goes into that fight armed with the facts certainly has a better chance of winning it than the fellow who goes in with only the idea that he is entitled to a greater rate of depreciation.

Chairman Kempf: Here is one for Mr. Hancock. "Do you consider it necessary to keep detailed records of machine shop and electrical supplies, such as fittings, bolts, and nuts, etc., with a unit cost of 10 cents and under?"

Mr. Hancock: I presume that this refers either to the matter of inventory records or to whether such items should be expensed at the time of purchase and taken directly into cost of production. I do not think it is necessary to keep detailed records of the individual items. I think that the case or package lots should be carried in inventory, and they can be expensed as they are taken from the storeroom and individual records no longer kept. I know that in some companies that practice has been followed. In peacetime practice some concerns insisted upon requisitions (even though no actual use was made of them) to impress upon those withdrawing the items the need for cost control. I think such practices have been dis-

carded in recent years. The need for better cost control will soon return, and such practices will have to be resumed.

Chairman Kempf: A. V. Lafaver of Detroit asks Mr. Armstrong, "On fully depreciated assets, what percentage of the original cost value of the assets would you use for insurance purposes?"

Mr. Armstrong: It is very simple to answer that question. It all depends on the facts. It is not a matter of mathematics at all. It is a matter of the remaining useful life of the property and its condition.

Chairman Kempf: Here is a question for Mr. Scott. "Knowing that under a DPC lease agreement you must give the DPC possession of all their property at the end of the war, and knowing now that some of the facilities so purchased by DPC are either used up or lost, is it not wise to now pay DPC the cost of such items and write them off?" This is asked by C. W. Hendricks of Newark.

Mr. Scott: I think a categorical answer would be, "Never pay before you have to." However, I think that on a DPC lease, the DPC will look for a return of the plant and equipment subject to normal deterioration and probably normal loss. It seems to me that the lessee is borrowing trouble to take action before it is necessary for him to take action, and I would counsel waiting to see just what procedures DPC and other governmental agencies are going to follow, because I don't think we know today.

Chairman Kempf: Here is another question for Mr. Scott. "A contractor has acquired $25,000 worth of special equipment for a government contract. The contract was terminated when 90 per cent completed. The contractor originally intended to claim the right to amortize the total of $25,000 over the life of the government contract but now considers that the equipment has some value to him. What should be his procedure for termination settlement and tax adjustment?" This question is asked by C. M. Clark of Washington.

Mr. Scott: It seems to me that if the contractor considers the equipment to be of value and he desires to retain that equipment, he

should include in the termination claim only that portion of the total cost which would measure the use of that equipment on the particular contract. If he includes the entire cost of the equipment in his claim, it is my understanding that title to the equipment will pass to the Government; therefore, I think he is entitled only to a reasonable amortization charge on the equipment, assuming that he wants to retain title to it.

CHAIRMAN KEMPF: M. C. Coutts of Toronto, Canada, asks Mr. Armstrong, "Has the basis of pricing government-owned machines and equipment been determined? If 'yes,' what is it? If 'no,' what is your guess on the basis to be adopted?"

MR. ARMSTRONG: I won't guess. I will say that there has been no basis established that I know of. A recent poll taken by the news magazine, *Time,* in cooperation with *Fortune,* indicated that business men in general expected that that ratio would be about 27 per cent of the cost. This was purely an opinion poll. On the other hand, the Truman Committee made the recommendation in their report that the DPC or some other government agency determine now what the normal costs of facilities were under prewar conditions and prewar prices and establish a relationship expressed in percentage between that prewar condition and the existing war condition and use that percentage as an average in negotiating the sale of government-owned facilities.

Just a word of warning here. That average, as you know, is very likely to play tricks. There is very likely to be a 10 to 1 difference in specific cases.

CHAIRMAN KEMPF: This question is for Mr. Landolt. "When transferring equipment between plants, should the installation cost at the original plant be written off or carried with the net value transferred?" This is asked by Norman Pohl of Detroit.

MR. LANDOLT: On the assumption that the installation is going to be either identical or comparable with the one where the equipment was first in place and in use, I would say that the thing to do is to expense the cost of the second installation, if for no other reason than that you might have moved a piece of equipment installed some years ago when labor costs were considerably lower and your first

installation cost might have been considerably less than it would be today. You have on your books the asset value of that piece of equipment in place, and you are now depreciating it. The expense incident to the moving of that piece of equipment, including a new foundation, if substantially the same as the former foundation, should be charged to expenses.

CHAIRMAN KEMPF: M. J. Weinstein of New York wants Mr. Landolt to answer the question: "Is it advisable to set up reserves for additional taxes, or possible reserves for renegotiation obligations on the books of a company? Is this not an admission of the amount of a liability? How do you take care of coverage of insurance on equipment that is charged off as an expense at the time of installation?"

MR. LANDOLT: I am not quite certain that I get the continuity of thought behind the question, but I would say that it is always advisable to overestimate rather than underestimate in setting up a tax reserve. If you don't need it, you merely cancel it and you have that much more money to play with, but if you find that you do need the additional tax reserve and you have not provided for it, you may find that it will impair your working capital to some extent.

As far as setting up a reserve for contract renegotiation is concerned, it is certainly no admission that you will need such a reserve or that the amount that you have set up as a reserve is the amount that you are going to have to pay to the Government. The question of whether it is an adequate reserve or not is going to depend largely on facts and figures. I expect there are few companies in the country today that can at any given balance sheet date set up an accurate reserve for contract renegotiation. You merely set up your best estimate, based on information available to you at that time. It may be more of a reserve than you ultimately find necessary or it may be less. You will adjust that reserve up or down as the facts and figures change from time to time, so that at the end of your fiscal year you have provided what you consider to be an adequate reserve.

I do not believe that in my experience or in my contacts with people who have cited their experiences that that has ever worked to their disadvantage. The price adjustment boards are for the most part fair. I think they have a pretty complete grasp of the picture.

They understand your particular industry and its problems when they set a percentage figure that you are allowed to retain as earnings. I do not know that in any cases they have been swayed by the reserve that you have set up.

As to the question of insurance on equipment that is charged off as expense at the time of installation, that is a delicate question because, in the first place, you probably had no business charging equipment off to expense at the time you acquired it. If the Internal Revenue examiner gets around to that fact, he is certainly going to throw it out of expenses and make you set it up as a fixed asset. The insurance that you are carrying on that equipment I do not believe in any way affects you, because normally you do not set out a complete list of all of the fixtures and assets and property values that you have for insurance purposes. You generally give them a more or less lump-sum figure. If in that lump sum you have covered equipment that is not on your balance sheet account of fixed assets, it does not affect your position one way or the other.

MR. SCOTT: May I comment on that question? With respect to renegotiation proceedings, I think we might just bring in at this point the fact that the Price Adjustment Boards in Washington have issued instructions to the local price adjustment boards that they are not to be prejudiced in any way by any reserve set up on a company's books in its renegotiation proceedings, and the Government urges that companies set up proper reserves which in their opinion are necessary to cover the contingency of renegotiation.

With respect to taxes, I think the procedure of setting up excess tax reserves has been followed to such a great extent by the larger companies, that a tax examiner is not going to be swayed by the fact that the company has made provision for tax contingencies in its tax provisions.

MR. ARMSTRONG: I should like to add a comment to the second section of that question. I do not believe there is any specific relationship between charging off of assets and the insurability of plant property. You may very well have plant facilities which are consistently expensed and approved by the revenue agents as such, such as tools, patterns, dies, and fixtures. Those same facilities, however, are insurable, and if you do not have independent records to show the existence and value of those facilities you are going to

be underinsured. In other words, if you rely on your book records to provide that information, you are obviously going to be underinsured.

Chairman Kempf: Winston Summer of Peoria asks Mr. Scott, "How do you recommend that fully depreciated assets (also fully amortized) still being used in manufacturing operations be recorded in the accounts? Would you eliminate them from the asset and reserve accounts or include them until actually disposed of?"

Mr. Scott: Of course, we have always had that question with respect to fully depreciated assets, and it does seem preferable, and I think highly desirable, to carry such assets on the books, even though fully offset by a reserve, and present the figures in the financial statement as long as such assets are in use.

At the end of the emergency period with respect to assets which have been fully amortized it may be that some companies may deem it desirable to go back for book purposes and financial statement purposes and adjust the amortization that has been taken in the light of the conditions that will exist at the close of the period.

Chairman Kempf: Mr. Hancock. "Do you favor capitalizing installation costs on your own equipment in every case or should they ever be expensed even though installed on your own property?"

Mr. Hancock: That question is a rather broad one. It might deal with facilities acquired for use during the war or it might refer to general or peacetime practice. In the former case, I think that if the type of equipment were the same as that used during peacetime and if it had been the practice to capitalize installation costs, then that same practice should be followed for the sake of consistency.

If the question refers to practice during peacetime, which I rather doubt, I think that each company has its own policies. Certainly, for the most part installation cost is a proper part of capital cost, but there is no need of being ridiculous about it and including very small amounts. I think those should be expensed.

Chairman Kempf: Our last question is for Mr. Conrad. "If, as, and when property has been unscrambled and a company has

determined what additional government equipment they wish to acquire, do you think adequate financing will be available for its purchase?"

Mr. Conrad: I presume that this question involves a company wishing to purchase government-owned property and equipment which they have been leasing for war production. Mr. Landolt mentioned in his talk that the machine tool industry might possibly be hungry for business after the war and that the purchase of new equipment could probably be accomplished on the installment plan. While this may be true in certain lines, there are those who feel that a certain percentage of the machines which have been produced in the past two or three years were special, and it is impractical to convert them to postwar operations. They are of the opinion that the industry generally will be busy for the next few years replacing equipment for consumer production which has been overtaxed during the war without proper maintenance and which has become obsolete during the interval.

Getting back to the question of government-owned property, I believe that there will be adequate financing available for those established companies who wish to purchase government facilities after the war. By a well-established company I mean a concern whose operations reflect sound management, which has a potential capacity to liquidate the indebtedness incurred, and has indications of stability. A number of loaning officers of various banks with whom I discussed a similar question concurred in this opinion. Some companies will undoubtedly finance their purchase through term loans, while one senior executive of a large bank expressed an opinion that the Government might offer a plan similar to V and VT loans whereby it would guarantee a portion of a loan of this type to effect an efficient and equitable disposition of the plant and equipment. His theory was that such requests for financing would in all probability occur before realization of termination claims which together with V or VT borrowings, federal taxes, and possibly renegotiation liability would present such an extended debt position that government assistance to this extent would be advisable.

I do not know whether that answers the question or not, but while I have the floor I would like to say a few words which no doubt are out of order. I should like to pay tribute to you as individuals and as an organization for the fine cooperation which you have given

the banks in your company's negotiations for V and VT credits. I see a number of our customers before me here—treasurers, controllers, and cost accountants—and I know from experience that requirements in connection with these loans created considerable overtime and long tedious hours. For the benefit of those who have not participated in these loans, the president and treasurer, together with the company's attorney, negotiate the bank credit agreement, while the accounting department is asked to prepare, in addition to regular financial reports, a forecast of operations for the next twelve months, a cash forecast for the next twelve months, and projected balance sheets for the next twelve months. While you gentlemen probably did not appreciate it at the time, I think it was one of the greatest compliments ever paid anyone to infer that under such chaotic conditions, with cancellations, additional war contracts and orders, engineering changes, etc., you would be able to forecast conditions for one year in advance. We are now servicing some 600 million of V and VT credits as agent or co-agent. Knowing the large percentage of these reports that originate in your department, we realize that you men have played no small part in expediting these credits. I am sure that we shall have your continued cooperation.

However, I want to remind you that your work has just begun. Those statements and forecasts required a lot of work at a time when your personnel, probably reduced by the requirements of the Armed Services, was taxed to capacity. But in my opinion your work in connection with cancellation claims and settlements will be even more important. The costs which will be accumulated by your departments are the very foundation of every claim, and an efficient and expeditious settlement will depend largely on the methods and policies which you employ. I do not see how there can be a return to normal business until the funds that are tied up in war receivables and inventories have been converted into cash for postwar operations. There is only one way that this can be accomplished and that is through the accumulation and liquidation of cancellation claims, which along with death and taxes have been added to the certainties of life. Knowing the job that you have done, I am sure that you will handle these claims in a very capable manner. As a matter of fact we have the utmost confidence in you in this respect, since we plan to loan substantial sums of money predicated on your claims.

Chairman Kempf: We have far more questions here than we could attempt to answer if we remained in session all day long and possibly into the night, so it is necessary to stop the discussion at this point. I will turn the meeting back to our President, Mr. DeVitt.

President DeVitt: First, I thought you would be interested in knowing the registration of this conference. Last year in Boston we had a total registration of 1,443 members and guests. This year at Chicago we have a total registration of 2,015 members and guests. The registration of 1,409 members this year is only 34 less than the total registration of both members and guests at Boston last year. Hence, this Conference is the largest in our history.

This Twenty-fifth International Cost Conference of the N. A. C. A. is now coming to a close. It has been our privilege to have our major accounting problems of today and of tomorrow brought into focus for us by able speakers. The splendid papers presented and the attendant discussion have given us a great deal of information and beneficial instruction. I believe you agree that we have exchanged ideas; we have had intellectual inspiration; and I know we have a deeper appreciation of our responsibilities. We have been stimulated and furnished with a broader perspective and new insight into our problems. We have renewed old friendships and gained new ones. Enthusiasm has been created for the difficult job ahead. The results of this conference have all been good.

All these things and many more have been created by the Technical Program Committee in charge of this conference, by our able speakers, and by our own personal contributions to one another. I congratulate Mr. Monroe, his Committee, and the speakers for the constructive contributions they have all made to us, to our companies, and to our country.

On behalf of the Association, gentlemen, I thank you for your splendid achievement. I know that this audience would also desire to express their gratitude and appreciation to all those who have labored so devotedly in making the arrangements and plans for this conference, and particularly to those who have given us such a hospitable welcome here in Chicago. To you, Bill Bollinger, as Chairman of the Convention Arrangements Committee, and to your co-chairmen, Tom Fleming and Ben Sayre, and to the whole Chicago Chapter, I say to you that we are most deeply in your debt.

Now we bring our third wartime conference to a close. Let us hope and pray that when we meet again in 1945 our world will be at peace, and the men and women and the boys and girls of all nations will be back home again.

In the meantime I wish you and yours good luck, good health, and I now declare this conference adjourned.

. . . The conference adjourned at twelve o'clock . . .